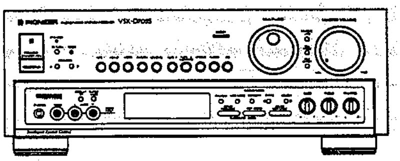
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
RRV1428

AUDIO/VIDEO STEREO RECEIVER

VSX-D705S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	VSX-D705S		
KU	○	AC120V	
KC	○	AC120V	

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V . Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

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T–DFG JAN. 1996 Printed in Japan

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols ⊞ (fast operating fuse) and/or ⊠ (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible ⊞ (fusible de type rapide) et/ou ⊠ (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

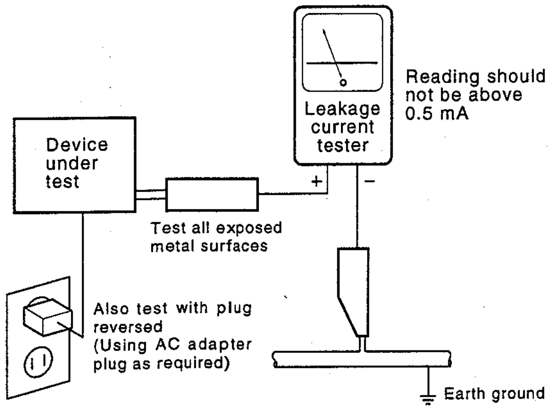
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
−
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage , etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS, PACKING AND PARTS LIST

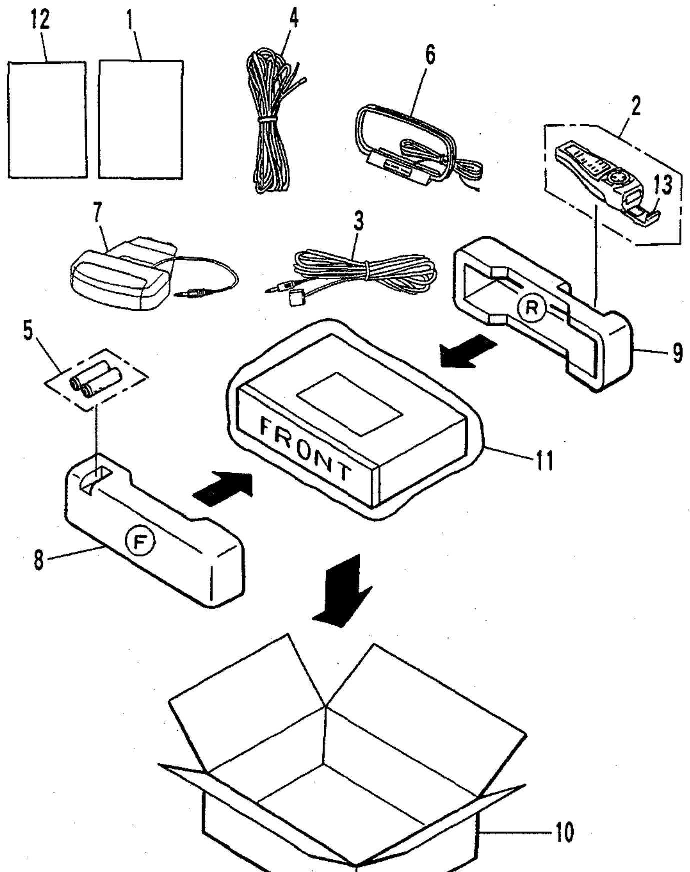
NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

2.1 PACKING

Parts List

Mark	No.	Description	Parts No.
	1	OPERATING INSTRUCTIONS (English)	ARB7063
	1	OPERATING INSTRUCTIONS (French) (KC type only)	ARC7100
	2	REMOTE CONTROL UNIT (CU-VSX103)	AXD7080
	3	MINI REPEATER	ADF1002
	4	FM ANTENNA	ADH1015
NSP	5	BATTERY (R6P, AA)	AEX-010
	6	LOOP ANTENNA ASSY	ATB1005
	7	MAIN REPEATER	AXF7001
	8	FRONT PAD	AHA7056
	9	REAR PAD	AHA7057
	10	PACKING CASE	AHD7260
	11	PACKING SHEET	AHG1021
	12	ATTENTION SHEET (READ BEFORE USING) (English/French/Spanish/Chinese)	ARM7007
	13	BATTERY COVER	AZN7187

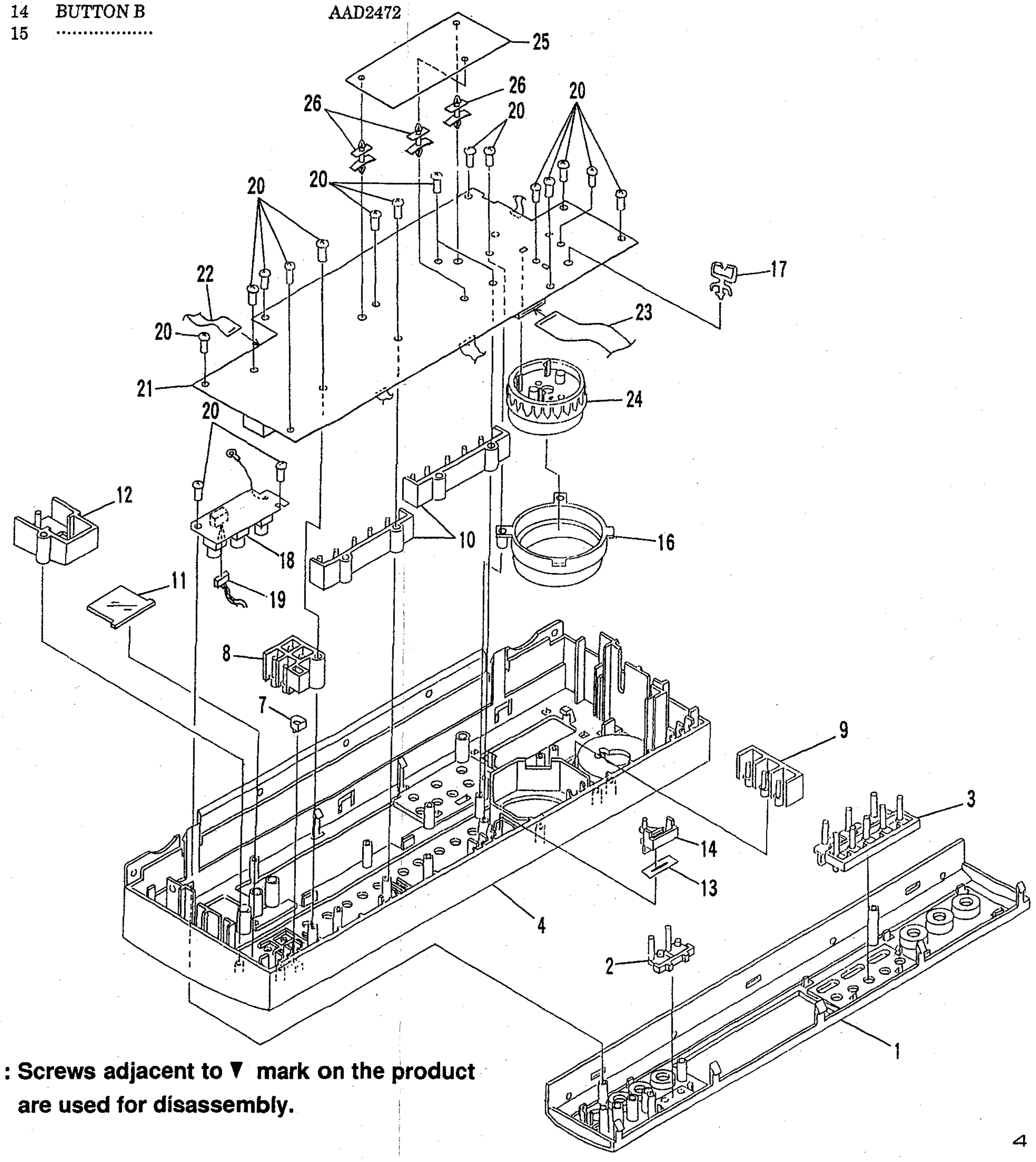


2. 2 EXPLODED VIEWS

1. FRONT PANEL SECTION

Parts List

Mark	No.	Description	Parts No.
	1	CENTER PANEL	AAK7263
	2	GUI MODE BUTTON	AAD4048
	3	TX BUTTON	AAD4050
	4	FRONT PANEL	AMB7322
	5	....	
	6	....	
	7	LED LENS	PNW2019
	8	ASC BUTTON	AAD4049
	9	MUTE BUTTON	AAD4047
	10	FUNCTION BUTTON	AAD2470
	11	IR FILTER	AAK2575
	12	POWER BUTTON	AAD4052
NSP	13	SHEET	AED1160
	14	BUTTON B	AAD2472
	15	....	
	16	RING	AAK2586
NSP	17	WIRE CRIP	AEC1535
NSP	18	VIDEO ASSY	AWZ7654
NSP	19	HOUSING 5P (J3)	ADX2096
	20	SCREW	BPZ26P080FMC
	21	FL UCOM ASSY	AWZ8208
	22	FLEXIBLE FLAT CABLE (J1)	ADD1114
	23	FLEXIBLE FLAT CABLE (J2)	ADD1134
	24	ESCUTCHEON	AAK2585
	25	LOGIC ASSY	AWZ7651
	26	PCB SPACER	DEC1338

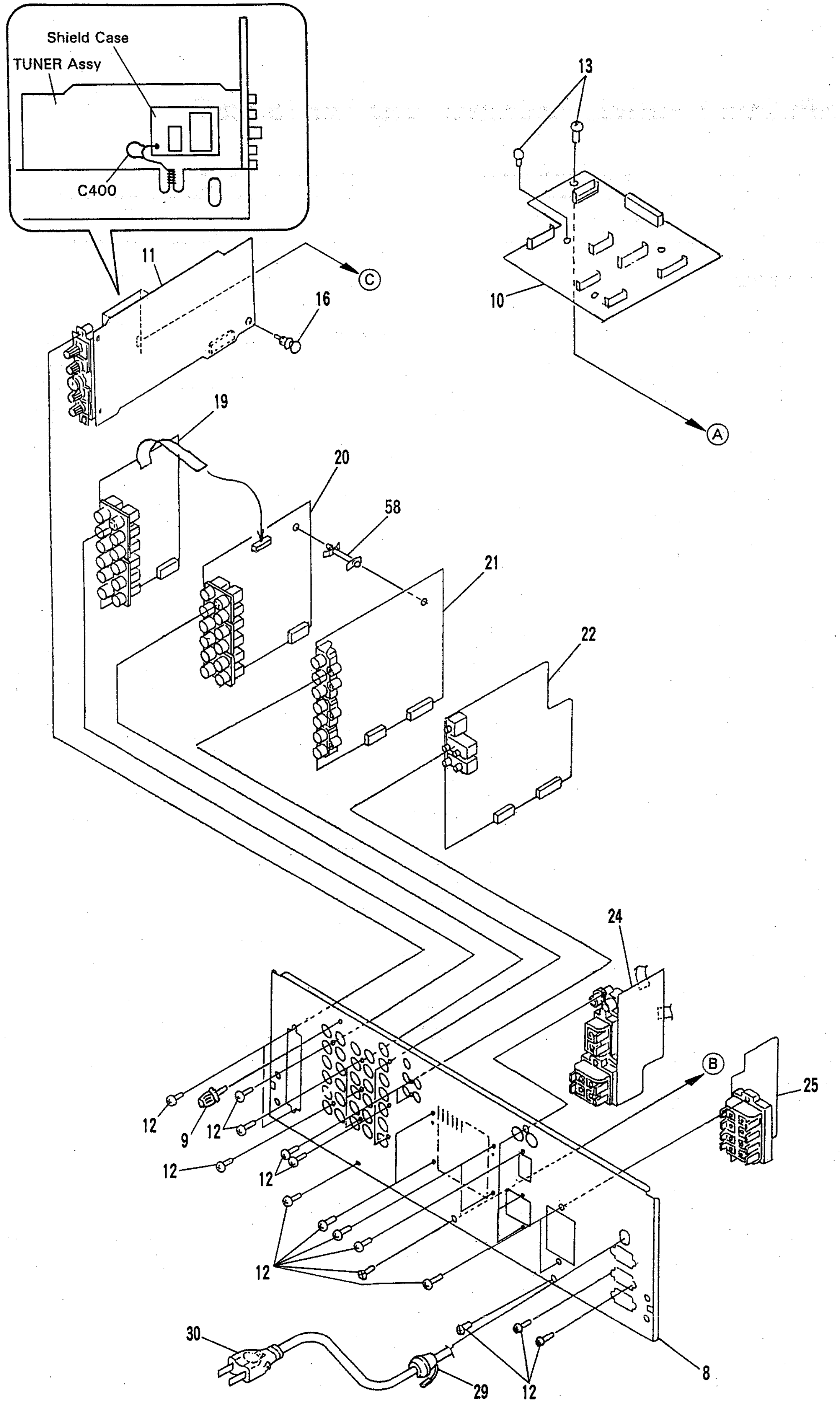


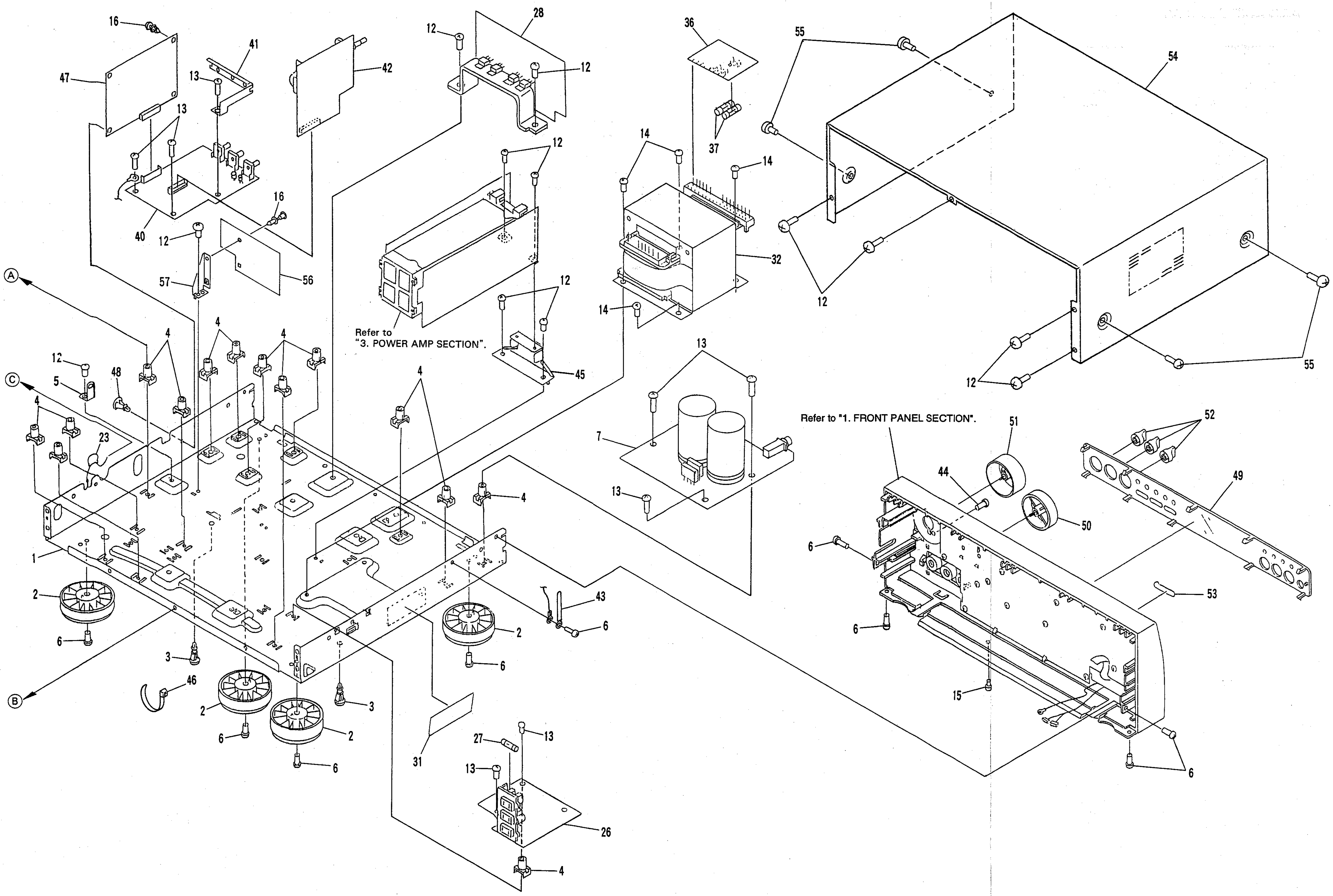
NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

2. EXTERIOR

Parts List

Mark	No.	Description	Parts No.
NSP	1	CHASSIS	ANA7018
	2	FOOT ASSY	AMR2414
NSP	3	PCB HOLDER	PNW2029
NSP	4	PCB MOLD	AMR1525
	5	L TYPE HOLDER	ANG1903
	6	SCREW	ABA1009
	7	POWER SUPPLY ASSY	AWZ8201
	8	REAR PANEL (KU type)	ANC7332
	8	REAR PANEL (KC type)	ANC7333
	9	TERMINAL SCREW	AKE-031
	10	CONNECTION ASSY	AWZ8203
	11	TUNER ASSY	AWE1140
	12	SCREW	ABA-298
	13	SCREW	ABA1018
	14	SCREW	ABA1053
	15	SCREW	BPZ30P060FZK
	16	RIVET	AMR1066
	17	....	
	18	....	
	19	AUDIO FUNCTION ASSY	AWZ7634
	20	A/V FUNCTION ASSY	AWZ7636
	21	VIDEO FUNCTION ASSY	AWZ8205
	22	S+SR, MR, IR ASSY	AWZ8345
	23	CAPACITOR (C400)	CKDYF102Z50
NSP	24	R.C SP. ASSY	AWZ7626
NSP	25	FRONT SP. ASSY	AWZ7623
	26	PRIM ASSY	AWZ7620
⚠	27	FUSE (10A/125V, FU1)	AEK1035
	28	REG. ASSY	AWZ7617
⚠	29	STRAIN RELIEF	AEP-113
⚠	30	AC POWER CORD	PDG1015
	31	65 LABEL (KU type only)	ORW1069
⚠	32	POWER TRANSFORMER (AC120V, T1)	ATS7058
	33	....	
	34	....	
	35	....	
NSP	36	TRANS ASSY	AWZ7622
⚠	37	FUSE (3.15A/125V, FU3, FU4)	AEK-124
	38	....	
	39	....	
	40	TONE ASSY	AWZ7642
	41	VOLUME HOLDER	ANG1902
	42	VOLUME ASSY	AWZ8199
NSP	43	BINDER	RNE1277
	44	SCREW	VMZ30P060FCU
NSP	45	MOLD HOLDER	ANG7021
NSP	46	BINDER	ZCA-BK1
	47	DOL. PRO. MOD. 1021	AXQ7042
	48	PCB HOLDER	AEC1534
	49	DISPLAY PANEL	AAK7236
	50	JOG DIAL	AAB2224
	51	VOLUME KNOB	AAB2225
	52	BALANCE KNOB	AAB2226
	53	BADGE	AAM1058
	54	BONNET	ANE7067
	55	SCREW	FBT40P060FZK
	56	C.G UCOM ASSY	AWK7301
	57	PCB HOLDER	ANG7086
NSP	58	PCB SUPPORT	AEC1013

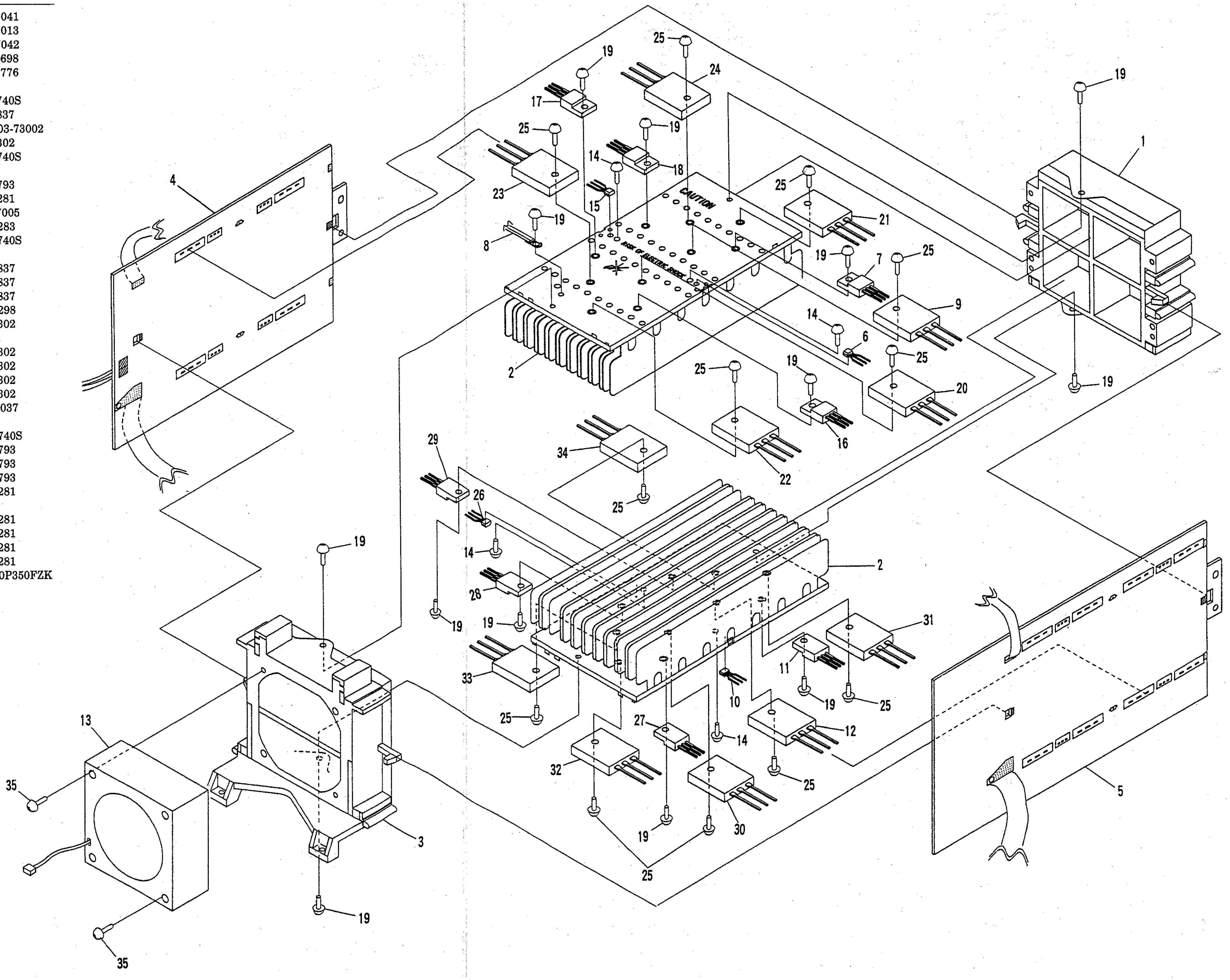



Ⓐ
Refer to
"3. POWER AMP SECTION".
Ⓒ
Refer to "1. FRONT PANEL SECTION".
Ⓑ

3. POWER AMP SECTION

Parts List

Mark	No.	Description	Parts No.
	1	MOLD A	AMR7041
NSP	2	RADIATOR	ANH7013
	3	MOLD B	AMR7042
	4	AMP ASSY C, S FAN_CN	AWZ7698
	5	AMP ASSY 200W	AWZ7776
⚠	6	TRANSISTOR (Q209)	2SC1740S
⚠	7	TRANSISTOR (Q23)	2SA1837
⚠	8	THERMISTOR (TH1)	150-203-73002
⚠	9	TRANSISTOR (Q3)	2SA1302
⚠	10	TRANSISTOR (Q210)	2SC1740S
⚠	11	TRANSISTOR (Q21)	2SC4793
	12	TRANSISTOR (Q1)	2SC3281
⚠	13	FAN MOTOR	AXM7005
	14	SCREW	ABA-283
⚠	15	TRANSISTOR (Q309)	2SC1740S
⚠	16	TRANSISTOR (Q24)	2SA1837
⚠	17	TRANSISTOR (Q33)	2SA1837
⚠	18	TRANSISTOR (Q34)	2SA1837
	19	SCREW	ABA-298
⚠	20	TRANSISTOR (Q4)	2SA1302
⚠	21	TRANSISTOR (Q7)	2SA1302
⚠	22	TRANSISTOR (Q8)	2SA1302
⚠	23	TRANSISTOR (Q11)	2SA1302
⚠	24	TRANSISTOR (Q12)	2SA1302
	25	SCREW	ABA1037
⚠	26	TRANSISTOR (Q310)	2SC1740S
⚠	27	TRANSISTOR (Q22)	2SC4793
⚠	28	TRANSISTOR (Q31)	2SC4793
⚠	29	TRANSISTOR (Q32)	2SC4793
⚠	30	TRANSISTOR (Q2)	2SC3281
⚠	31	TRANSISTOR (Q5)	2SC3281
⚠	32	TRANSISTOR (Q6)	2SC3281
⚠	33	TRANSISTOR (Q9)	2SC3281
⚠	34	TRANSISTOR (Q10)	2SC3281
	35	SCREW	BPZ30P350FZK


25
19
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1
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4
CAUTION
RISK OF ELECTRIC SHOCK
25
21
19
8
19
7
25
9
14
6
2
25
25
19
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34
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19
14
2
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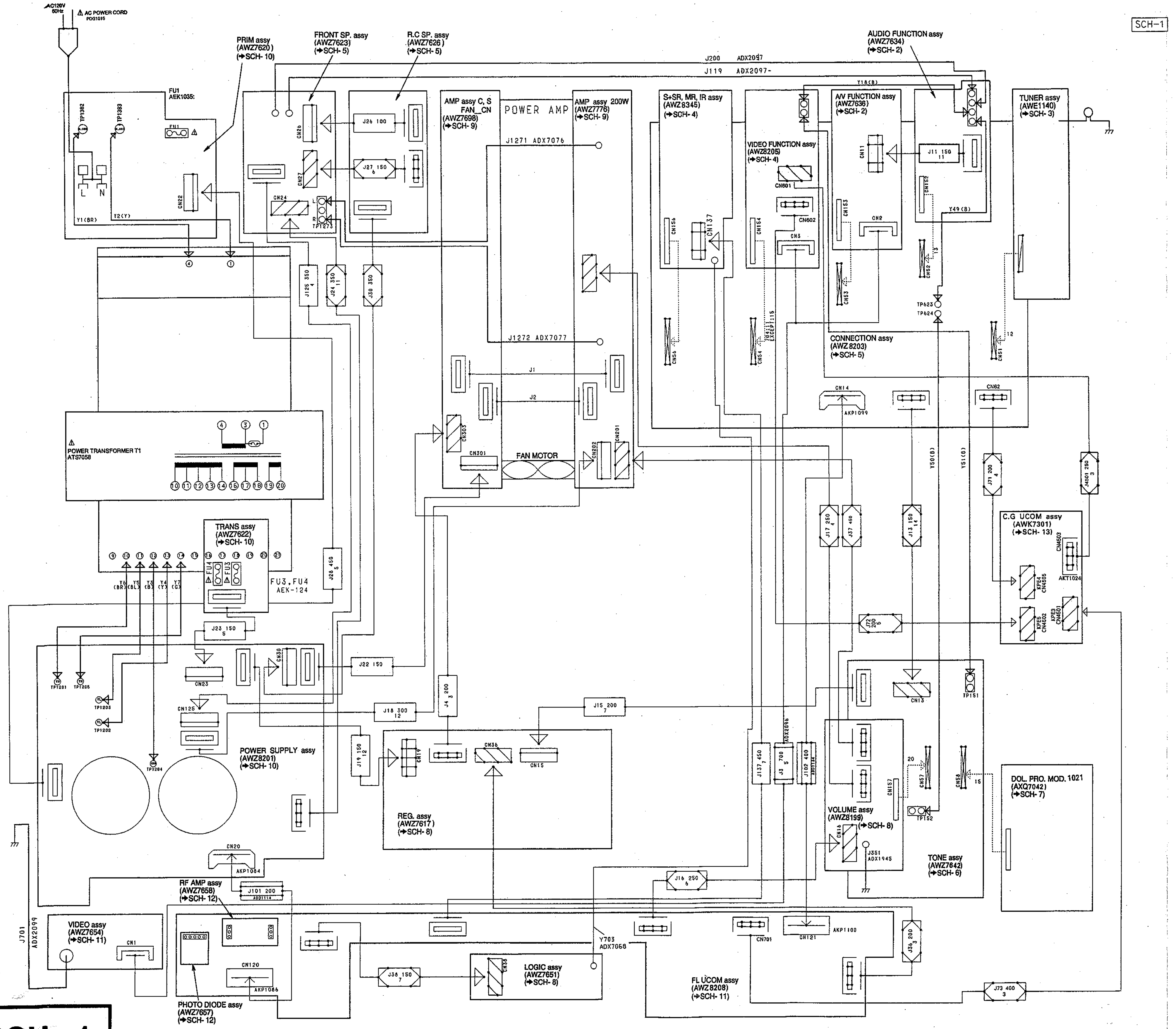
3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

3.1 OVERALL SCHEMATIC DIAGRAM


AC120V 60Hz
⚠ AC POWER CORD PDG1016
PRIM assy (AWZ7620) (➔SCH-10)
FRONT SP. assy (AWZ7623) (➔SCH-5)
R.C SP. assy (AWZ7626) (➔SCH-5)
SCH-1
FU1 AEK1035:
TP1382
TP1383
FU1 ⚠
L
N
CN22
Y1(BR)
Y2(Y)
CN26
CN27
CN24
TP1273
J26 100
J27 150 6
J125 350 4
J24 350 11
J30 350
AMP assy C, S FAN_CN (AWZ7698) (➔SCH-9)
POWER AMP
AMP assy 200W (AWZ7776) (➔SCH-9)
J1271 ADX7076
J1272 ADX7077
J1
J2
CN303
CN301
FAN MOTOR
CN202
CN201
J200 ADX2097
J119 ADX2097-
Y18(B)
S+SR, MR, IR assy (AWZ8345) (➔SCH-4)
CN156
CN137
CN56
VIDEO FUNCTION assy (AWZ8205) (➔SCH-4)
CN601
CN602
CN3
CN154
CN54
704:11 EXCEPT:15
A/V FUNCTION assy (AWZ7636) (➔SCH-2)
CN11
CN153
CN2
CN53
AUDIO FUNCTION assy (AWZ7634) (➔SCH-2)
J11 150 11
CN152
Y49(B)
CN52
13
TP623
TP624
TUNER assy (AWE1140) (➔SCH-3)
CN51
12
CONNECTION assy (AWZ8203) (➔SCH-5)
CN14
AKP1099
CN62
Y50(B)
Y51(B)
J71 200 4
J4501 250 3
⚠ POWER TRANSFORMER T1 ATS7058
TRANS assy (AWZ7622) (➔SCH-10)
FU4
FU3
FU3, FU4 AEK-124
Y6 (BR)
Y5 (BL)
Y3 (B)
Y4 (Y)
Y7 (G)
J28 450 5
J23 150 5
CN23
CN30
J22 150
CN125
TP1201
TP1205
TP1203
TP1202
TP1204
POWER SUPPLY assy (AWZ8201) (➔SCH-10)
J18 300 12
J4 200 3
J15 200 7
J19 150 12
CN19
CN36
CN15
REG. assy (AWZ7617) (➔SCH-8)
CN20
AKP1084
RF AMP assy (AWZ7658) (➔SCH-12)
J101 200
ADD1114
J701 ADX2099
VIDEO assy (AWZ7654) (➔SCH-11)
CN1
CN120
AKP1086
PHOTO DIODE assy (AWZ7657) (➔SCH-12)
J38 150 7
CN38
LOGIC assy (AWZ7651) (➔SCH-8)
Y703 ADX7068
J17 250 4
J37 450
J13 150 14
J72 200 5
C.G UCOM assy (AWK7301) (➔SCH-13)
CN4503
AKT1024
KPE4 CN4505
KPE5 CN4502
KPE3 CN4501
CN13
TP151
J137 450 7
J3 700 5
ADX2096
J102 400
ADD1134
VOLUME assy (AWZ8199) (➔SCH-8)
CN16
J351 ADX1945
CN157
CN57
20
CN58
15
TP152
TONE assy (AWZ7642) (➔SCH-6)
DOL. PRO. MOD. 1021 (AXQ7042) (➔SCH-7)
J16 250 6
CN701
CN121
AKP1100
J36 200 3
FL UCOM assy (AWZ8208) (➔SCH-11)
J73 400 3

NOTE FOR SCHEMATIC DIAGRAMS (TYPE 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF) / voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭V : SIGNAL voltage at rated output.
   ▭ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ◌ or ⊘ : Adjusting point.
   - ◀ : Measurement point.
   - The ⚠ mark found on some components parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH-☐ ON THE SCHEMATIC DIAGRAM:**
   - SCH-☐ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FL UCOM ASSY
S701: VCR2
S702: POWER STANDBY ON/OFF
S703: MUTING
S704: VIDEO
S705: RETURN
S706: GUI MODE
S707: SAT/TV
S708: SPEAKERS A
S709: GUI ENTER
S710: RESET
S711: LD/DVD
S712: SPEAKERS B
S713: SELECT
S714: TAPE1
S716: ENTER
S717: TAPE2/MONITOR
S719: MEMORY
S720: PHONO
S722: MPX MODE
S723: TUNER
S724: DISPLAY OFF
S725: FM/AM
S726: CD
S727: SUPER BASS
S728: DOLBY 3CH LOGIC
S729: DIRECT
S730: VCR1
S731: DSP MODE
S732: DOLBY PRO LOGIC

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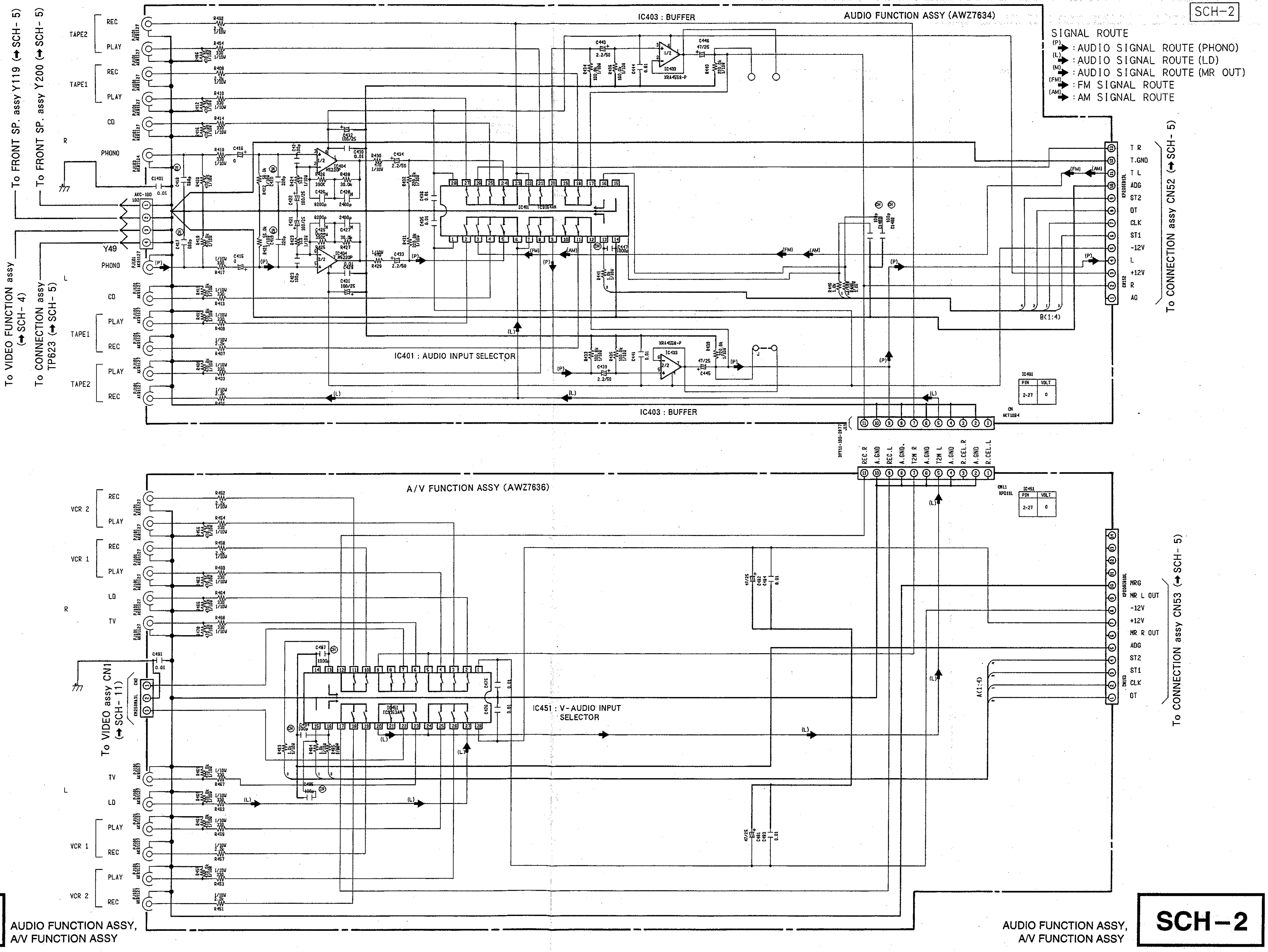
3.2 AUDIO FUNCTION ASSY AND A/V FUNCTION ASSY


AUDIO FUNCTION ASSY (AWZ7634)
IC403 : BUFFER
IC401 : AUDIO INPUT SELECTOR
IC403 : BUFFER
SIGNAL ROUTE
(P) : AUDIO SIGNAL ROUTE (PHONO)
(L) : AUDIO SIGNAL ROUTE (LD)
(M) : AUDIO SIGNAL ROUTE (MR OUT)
(FM) : FM SIGNAL ROUTE
(AM) : AM SIGNAL ROUTE
TAPE2
TAPE1
REC
PLAY
CD
PHONO
R
L
Y49
To FRONT SP. assy Y119 (→ SCH- 5)
To FRONT SP. assy Y200 (→ SCH- 5)
To VIDEO FUNCTION assy (→ SCH- 4)
To CONNECTION assy TP623 (→ SCH- 5)
IC404 M5220P
IC402 XRA4558-P
IC401 TC9164AN
T R
T.GND
T L
ADG
ST2
DT
CLK
ST1
-12V
L
+12V
R
AG
B(1:4)
To CONNECTION assy CN52 (→ SCH- 5)
IC401
PIN
VOLT
2-27
0
REC.R
A.GND
REC.L
A.GND
T2M R
A.GND
T2M L
A.GND
R.CEL.R
A.GND
R.CEL.L
A/V FUNCTION ASSY (AWZ7636)
IC451
PIN
VOLT
2-27
0
VCR 2
VCR 1
LD
TV
REC
PLAY
To VIDEO assy CN1 (→ SCH- 11)
IC451 : V-AUDIO INPUT SELECTOR
IC451 TC9163AN
MRG
MR L OUT
-12V
+12V
MR R OUT
ADG
ST2
ST1
CLK
DT
A(1:4)
To CONNECTION assy CN53 (→ SCH- 5)

NOTE FOR PCB DIAGRAMS:
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
E Q504 Q504	Q504 Q504	Transistor
D203 D203	D203	Diode
C513 C513	C513	Capacitor (Polarized)

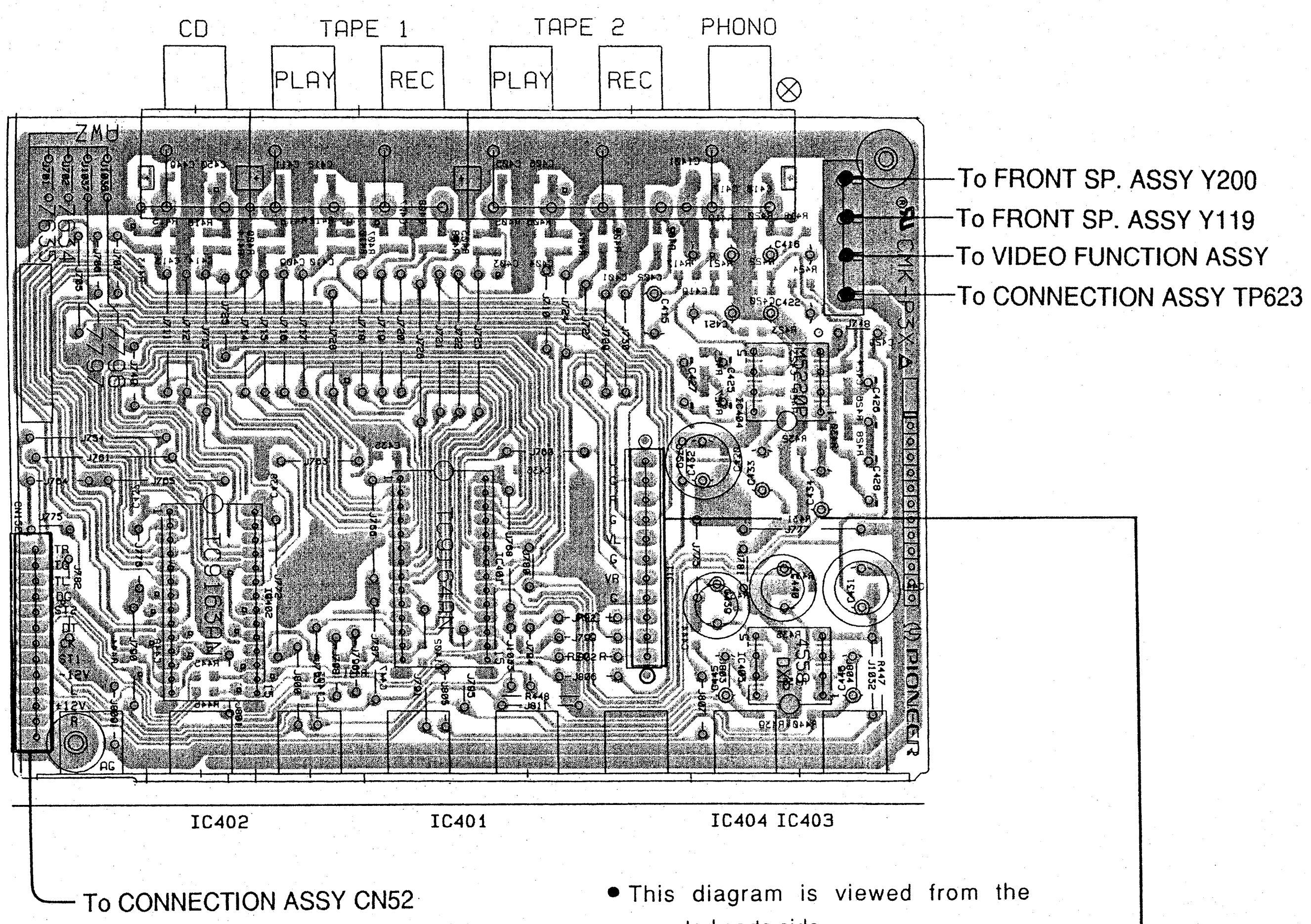
3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

NOTE FOR PCB DIAGRAMS:
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3- terminal regulator

PCB–1

AUDIO FUNCTION ASSY


CD
TAPE 1
PLAY
REC
TAPE 2
PLAY
REC
PHONO
ZMB
CMK P3X A
PIONEER
IC402
IC401
IC404 IC403

—To FRONT SP. ASSY Y200

—To FRONT SP. ASSY Y119

—To VIDEO FUNCTION ASSY

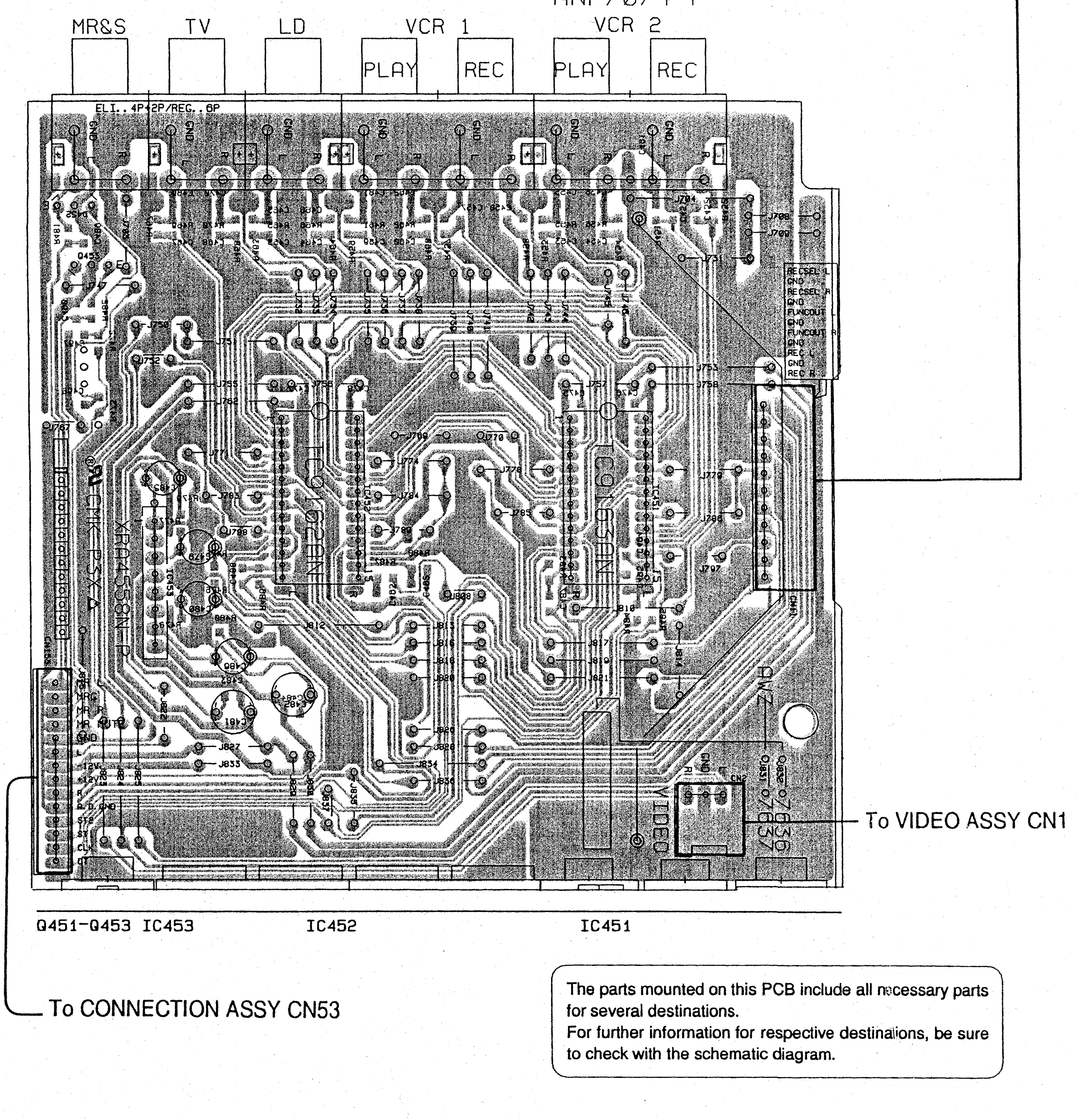
—To CONNECTION ASSY TP623

To CONNECTION ASSY CN52

- This diagram is viewed from the mounted parts side.

A/V FUNCTION ASSY

ANP7074-F


MR&S
TV
LD
VCR 1
PLAY
REC
VCR 2
PLAY
REC
ELI. 4P 2P/REC. 6P
CMK P3X A
XRA4558N P
VIDEO
AWZ
Q451–Q453 IC453
IC452
IC451

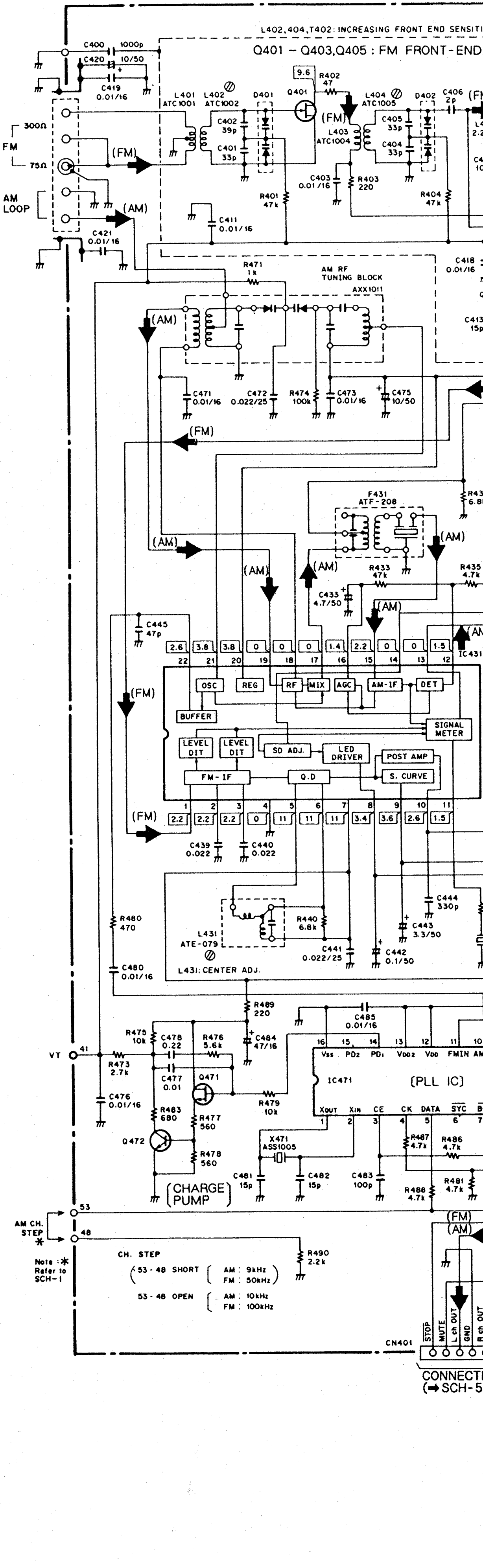
To VIDEO ASSY CN1

To CONNECTION ASSY CN53

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

3. 3 TUNER ASSY

TUNER ASSY (AWE1140)


L402,404,T402: INCREASING FRONT END SENSITI
Q401 – Q403,Q405 : FM FRONT-END
C400 1000p
C420 10/50
C419 0.01/16
300Ω
FM
75Ω
AM LOOP
C421 0.01/16
L401 ATC1001
L402 ATC1002
D401
Q401
C402 39p
C401 33p
R402 47
L404 ATC1005
L403 ATC1004
D402
C406 2p
C405 33p
C404 33p
C403 0.01/16
R403 220
R401 47k
R404 47k
C411 0.01/16
C418 0.01/16
C413 15p
R471 1k
AM RF TUNING BLOCK AXX1011
C471 0.01/16
C472 0.022/25
R474 100k
C473 0.01/16
C475 10/50
F431 ATF-208
R433 47k
R435 4.7k
C433 4.7/50
C445 47p
IC431
OSC
REG
RF
MIX
AGC
AM-IF
DET
BUFFER
SIGNAL METER
LEVEL DIT
LEVEL DIT
SD ADJ.
LED DRIVER
POST AMP
FM-IF
Q.D
S. CURVE
C439 0.022
C440 0.022
C444 330p
R480 470
L431 ATE-079
R440 6.8k
C441 0.022/25
C443 3.3/50
C442 0.1/50
C480 0.01/16
L431: CENTER ADJ.
R489 220
C485 0.01/16
VT
R475 10k
C478 0.22
R476 5.6k
C484 47/16
R473 2.7k
C477 0.01
Q471
IC471
(PLL IC)
C476 0.01/16
R483 680
R477 560
R479 10k
X471 ASS1005
Q472
R478 560
C481 15p
C482 15p
C483 100p
R487 4.7k
R486 4.7k
R488 4.7k
R481 4.7k
(CHARGE PUMP)
AM CH. STEP
Note: * Refer to SCH-1
CH. STEP
53 · 48 SHORT
AM : 9kHz
FM : 50kHz
53 · 48 OPEN
AM : 10kHz
FM : 100kHz
R490 2.2k
CN401
STOP
MUTE
L ch OUT
GND
R ch OUT
CONNECTI
(➡SCH-5

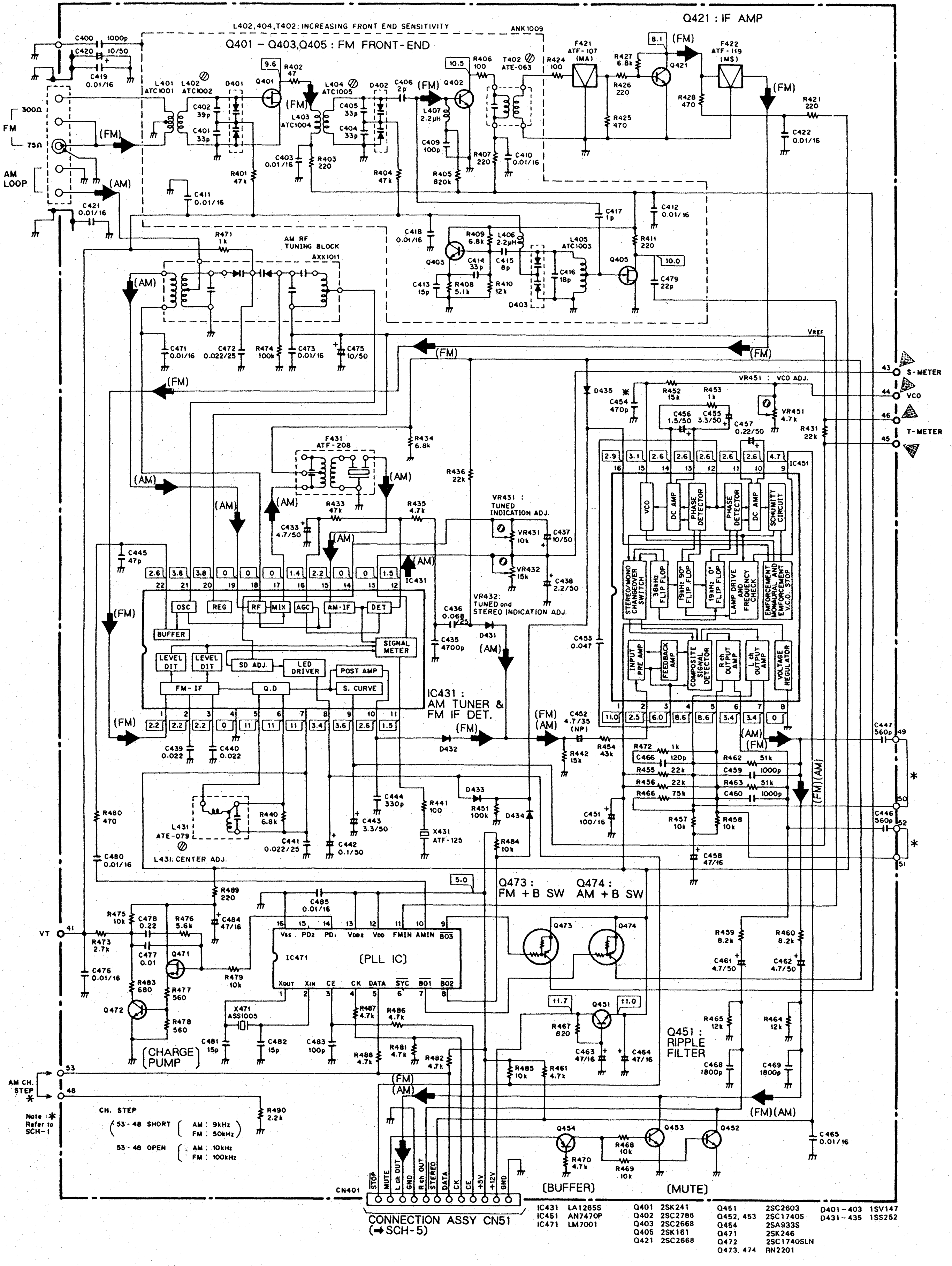
3. 3 TUNER ASSY

SIGNAL ROUTE

(FM) ➡ : FM SIGNAL ROUTE

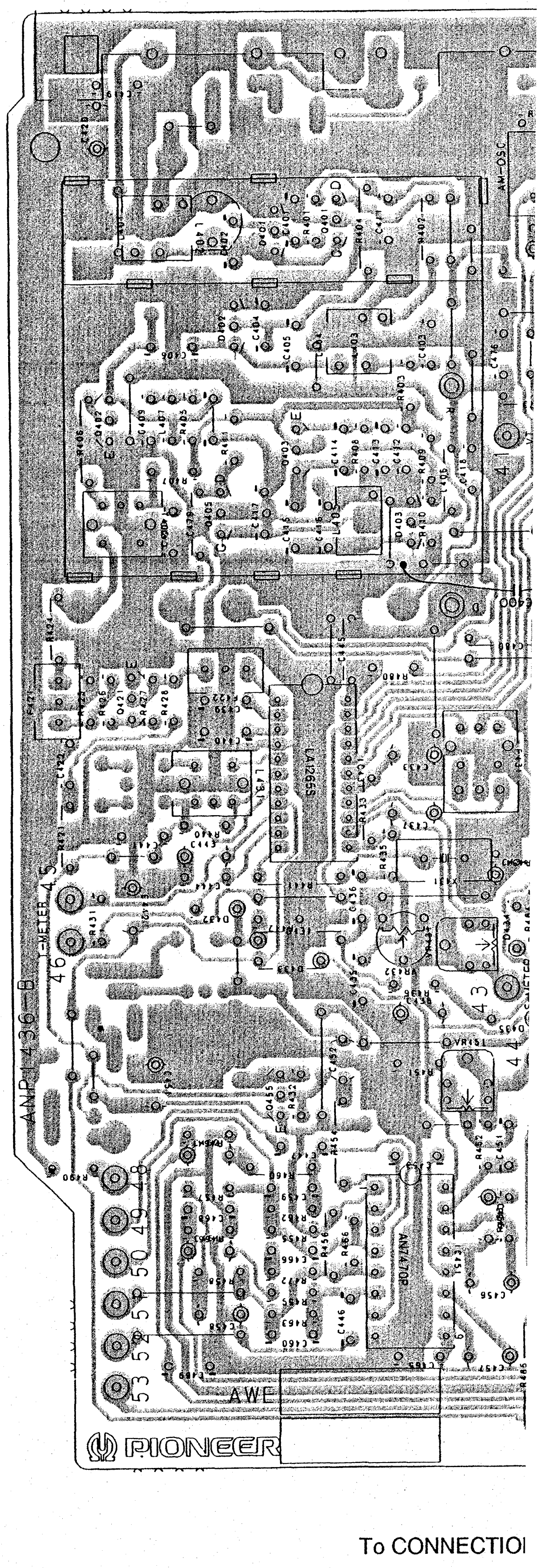
(AM) ➡ : AM SIGNAL ROUTE

TUNER ASSY (AWE1140)


L402,404,T402: INCREASING FRONT END SENSITIVITY
Q401 – Q403,Q405 : FM FRONT-END
Q421 : IF AMP
ANK1009
FM 300Ω 75Ω
AM LOOP
AM RF TUNING BLOCK AXX1011
F421 ATF-107 (MA)
F422 ATF-119 (MS)
F431 ATF-208
L431 ATE-079
L431: CENTER ADJ.
X431 ATF-125
VR431 : TUNED INDICATION ADJ.
VR432 : TUNED and STEREO INDICATION ADJ.
VR451 : VCO ADJ.
IC431 : AM TUNER & FM IF DET.
OSC
REG
RF
MIX
AGC
AM-IF
DET
BUFFER
SIGNAL METER
LEVEL DIT
SD ADJ.
LED DRIVER
POST AMP
FM-IF
Q.D
S. CURVE
IC451
VCO
DC AMP
PHASE DETECTOR
SCHUMITT CIRCUIT
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
S-METER
VCO
T-METER
VREF
VT
IC471 (PLL IC)
X471 ASS1005
(CHARGE PUMP)
Q473 : FM + B SW
Q474 : AM + B SW
Q451 : RIPPLE FILTER
(BUFFER)
(MUTE)
AM CH. STEP *
Note : * Refer to SCH-1
CH. STEP
53 - 48 SHORT (AM : 9kHz FM : 50kHz)
53 - 48 OPEN (AM : 10kHz FM : 100kHz)
CN401
STOP
MUTE
L ch OUT
GND
R ch OUT
STEREO
DATA
CK
CE
+5V
+12V
GND
CONNECTION ASSY CN51 (➡SCH-5)

IC431	LA1265S	Q401	2SK241	Q451	2SC2603	D401 – 403	1SV147
IC451	AN7470P	Q402	2SC2786	Q452, 453	2SC1740S	D431 – 435	1SS252
IC471	LM7001	Q403	2SC2668	Q454	2SA933S		
		Q405	2SK161	Q471	2SK246		
		Q421	2SC2668	Q472	2SC1740SLN		
				Q473, 474	RN2201		

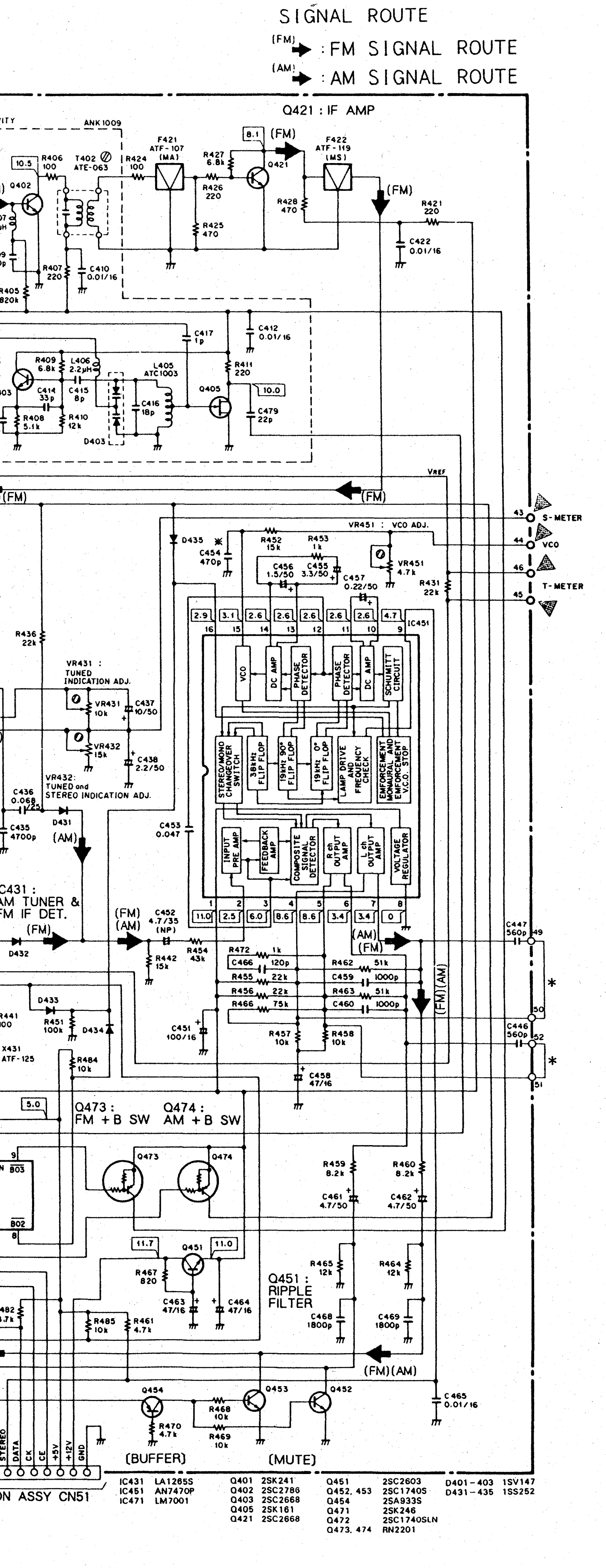
TUNER ASSY


ANP1436-B
T-METER
AM-OSC
AWE
PIONEER
53 52 51 50 49 48
46 45 43 41
LA1265S
AN7470P

To CONNECTIO

- This diagram is viewed from mounted parts side.

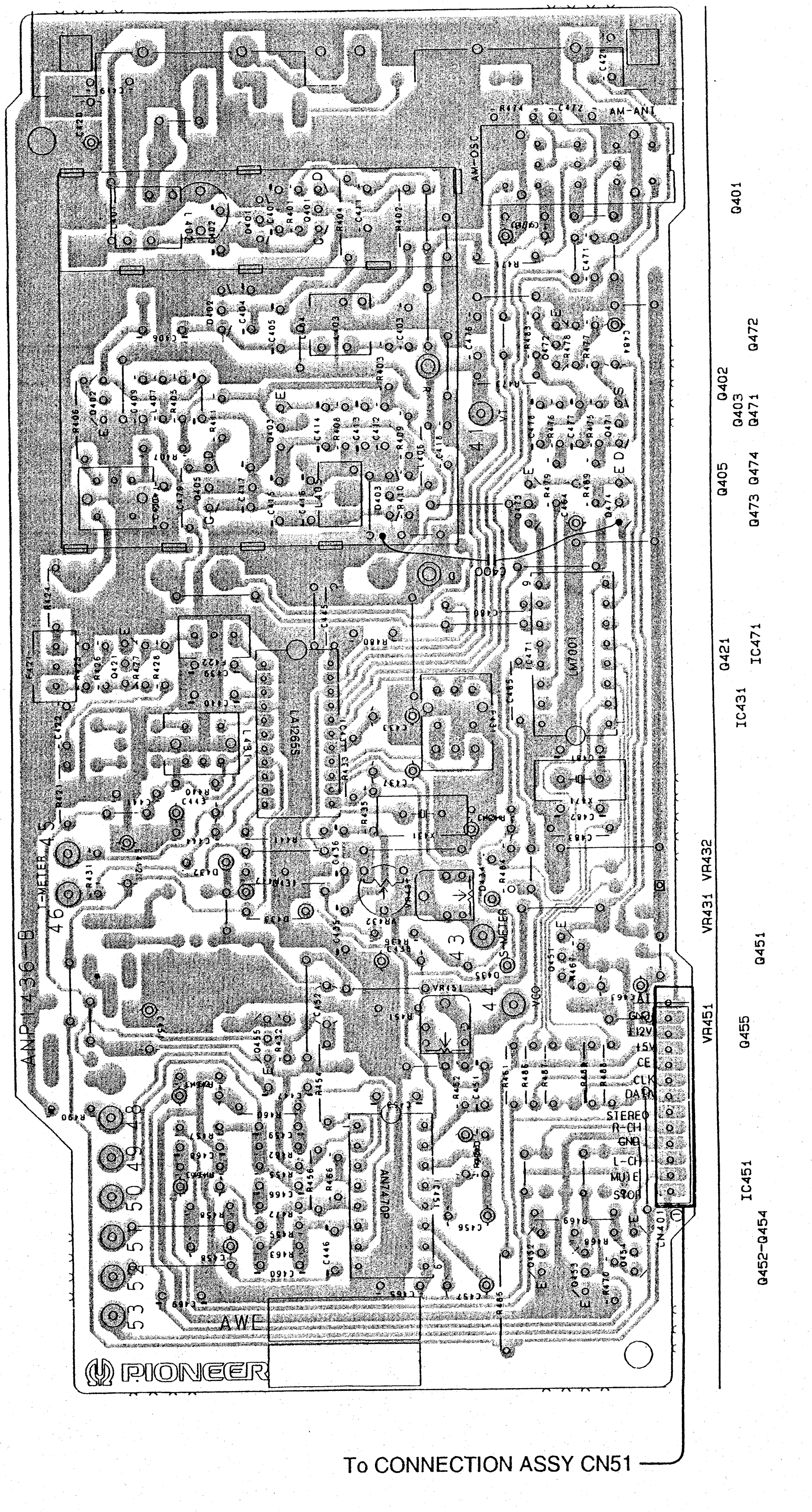
PCB–2


SIGNAL ROUTE
(FM) : FM SIGNAL ROUTE
(AM) : AM SIGNAL ROUTE
Q421 : IF AMP
ANK1009
VR451 : VCO ADJ.
S-METER
VCO
T-METER
IC451
VR431 : TUNED INDICATION ADJ.
VR432: TUNED and STEREO INDICATION ADJ.
IC431 : AM TUNER & FM IF DET.
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
VCO
DC AMP
PHASE DETECTOR
PHASE DETECTOR
DC AMP
SCHMITT CIRCUIT
Q473 : FM +B SW
Q474 : AM +B SW
Q451 : RIPPLE FILTER
(BUFFER)
(MUTE)
STEREO
DATA
CK
CE
+5V
+12V
GND
N ASSY CN51
IC431 LA1265S
IC451 AN7470P
IC471 LM7001
Q401 2SK241
Q402 2SC2786
Q403 2SC2668
Q405 2SK161
Q421 2SC2668
Q451 2SC2603
Q452, 453 2SC1740S
Q454 2SA933S
Q471 2SK246
Q472 2SC1740SLN
Q473, 474 RN2201
D401–403 1SV147
D431–435 1SS252

TUNER ASSY

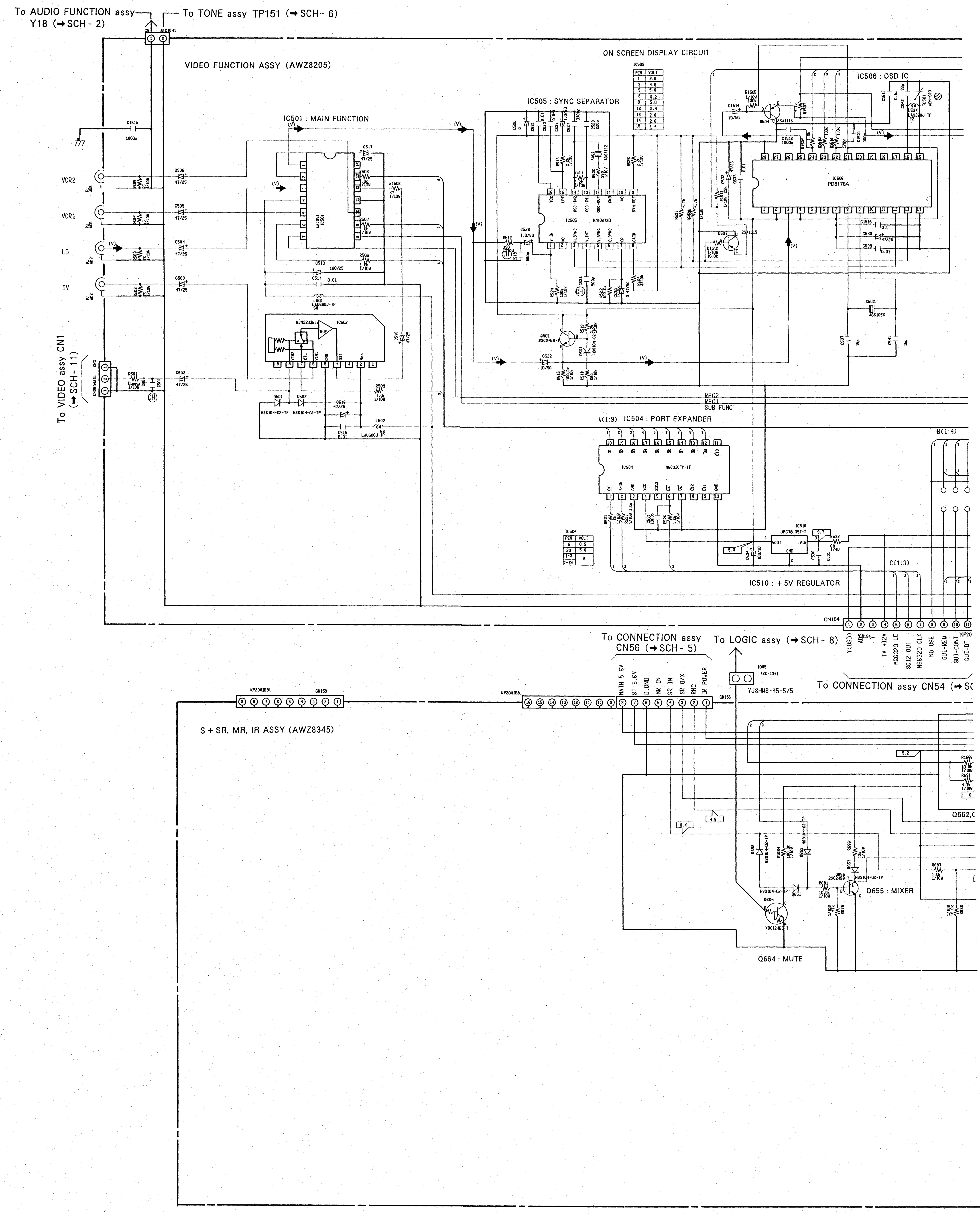
SCH–3

TUNER ASSY


ANP1436-B
AM-ANT
AM-OSC
LA1265
AN7470P
LM7001
S-METER
T-METER
VCO
PIONEER
AWE
CN401
STEREO
R-CH
GND
L-CH
MUTE
STOP
DATA
CLK
CE
+5V
+12V
GND
Q401
Q472
Q402
Q403
Q471
Q405
Q473 Q474
Q421
IC431
IC471
VR431 VR432
Q451
VR451
Q455
IC451
Q452–Q454
To CONNECTION ASSY CN51

- This diagram is viewed from the mounted parts side.

3. 4 VIDEO FUNCTION ASSY AND S+SR, MR, IR ASSY


To AUDIO FUNCTION assy
Y18 (→SCH- 2)
To TONE assy TP151 (→SCH- 6)
VIDEO FUNCTION ASSY (AWZ8205)
ON SCREEN DISPLAY CIRCUIT
IC505 : SYNC SEPARATOR
IC506 : OSD IC
IC501 : MAIN FUNCTION
VCR2
VCR1
LD
TV
LA7951
NJM2233BL
IC502
PD6178A
NN1067XD
To VIDEO assy CN1
(→SCH- 11)
REC2
REC1
SUB FUNC
A(1:9) IC504 : PORT EXPANDER
M66320FP-TF
B(1:4)
C(1:3)
IC510 : +5V REGULATOR
UPC78L05T-T
CN154
Y(OSD)
AD
TV +12V
M66320 LE
SD12 OUT
M66320 CLK
NO USE
GUI-REQ
GUI-CONT
GUI-DT
To CONNECTION assy
CN56 (→SCH- 5)
To LOGIC assy (→SCH- 8)
To CONNECTION assy CN54 (→S
MAIN 5.6V
ST 5.6V
D.GND
MR IN
SR IN
SR 0/X
RMC
IR POWER
CN156
CN153
S+SR, MR, IR ASSY (AWZ8345)
YJ8HW8-45-5/5
Q664 : MUTE
Q655 : MIXER
Q662

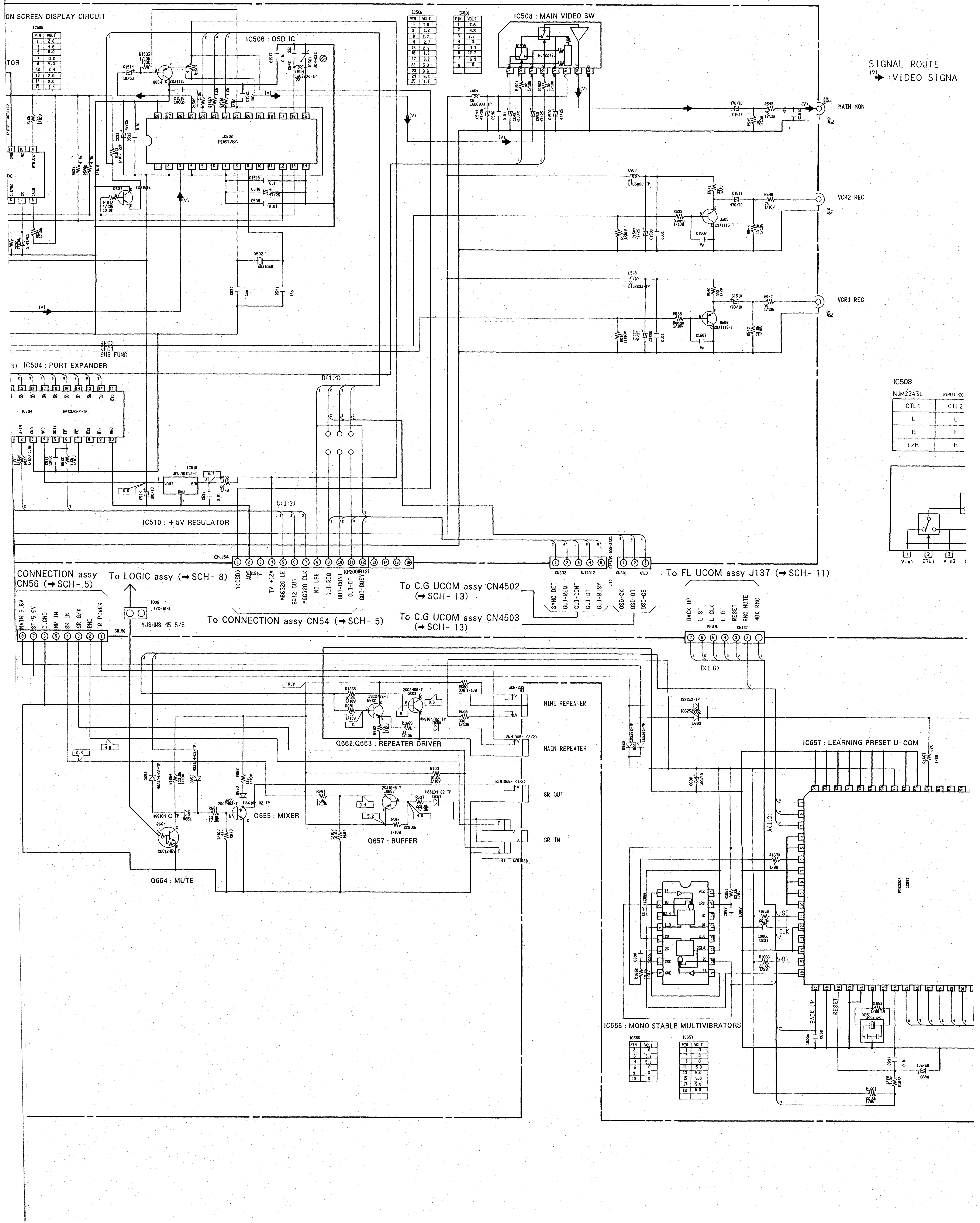
IC505

PIN	VOLT
1	2.6
3	4.6
5	5.0
8	0.2
9	5.0
12	2.4
13	2.0
14	2.0
15	1.4

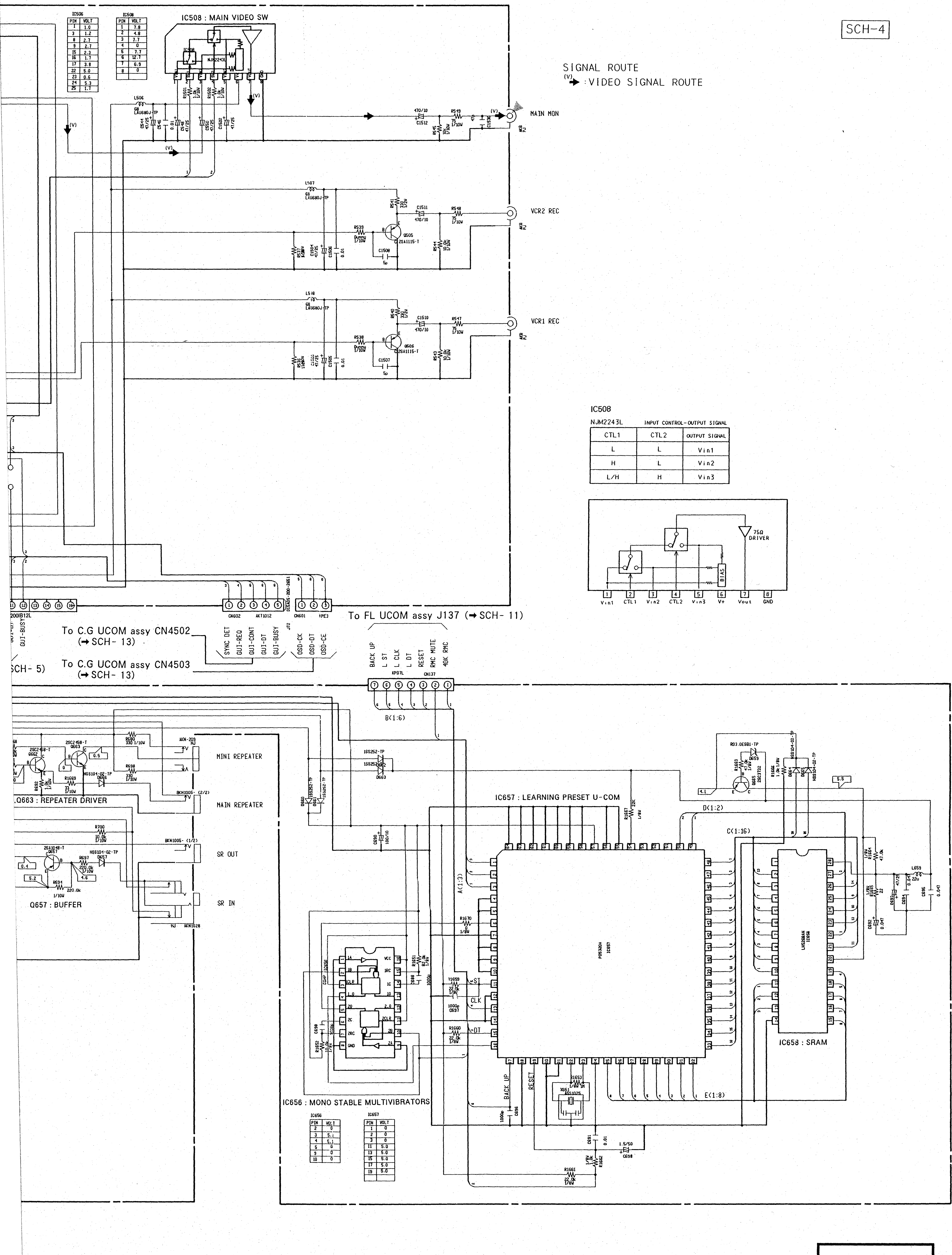
IC504

PIN	VOLT
6	0.5
20	5.0
1-3 7-19	0

VIDEO FUNCTION ASSY,
S+SR, MR, IR ASSY


ON SCREEN DISPLAY CIRCUIT
TOR
IC505
PIN VOLT
1 2.6
3 4.6
5 5.0
8 0.2
9 5.0
12 2.4
13 2.0
14 2.0
15 1.4
IC506 : OSD IC
PD6178A
IC506
PIN VOLT
1 1.0
3 1.2
8 2.7
9 2.7
15 2.3
16 1.7
17 3.8
22 5.0
23 0.6
24 5.3
25 1.7
IC508
PIN VOLT
1 7.8
2 4.8
3 7.7
4 0
5 7.7
6 12.7
7 6.9
8 0
IC508 : MAIN VIDEO SW
NJM2243L
SIGNAL ROUTE
(V) : VIDEO SIGNA
MAIN MON
VCR2 REC
VCR1 REC
IC508
NJM2243L
INPUT CC
CTL1 CTL2
L L
H L
L/H H
Vin1 CTL1 Vin2
REC2
REC1
SUB FUNC
IC504 : PORT EXPANDER
M66320FP-TF
IC510 : +5V REGULATOR
UPC78L05T-T
B(1:4)
C(1:3)
CN154
KP200IB12L
CN602
AKT1012
CN601
D1S4DS-200-2651
CONNECTION assy CN56 (→SCH- 5)
MAIN 5.6V
ST 5.6V
D.GND
MR IN
SR IN
SR O/X
RMC
IR POWER
CN156
To LOGIC assy (→SCH- 8)
I005
AKC-1041
YJ8HW8-45-5/5
Y(OSD)
ADJ
TV +12V
M66320 LE
SO12 OUT
M66320 CLK
NO USE
GUI-REQ
GUI-CONT
GUI-DT
GUI-BUSY
To CONNECTION assy CN54 (→SCH- 5)
To C.G UCOM assy CN4502 (→SCH- 13)
SYNC DET
GUI-REQ
GUI-CONT
GUI-DT
GUI-BUSY
To C.G UCOM assy CN4503 (→SCH- 13)
OSD-CK
OSD-DT
OSD-CE
To FL UCOM assy J137 (→SCH- 11)
BACK UP
L ST
L CLK
L DT
RESET
RMC MUTE
40K RMC
CN137
B(1:6)
MINI REPEATER
MAIN REPEATER
SR OUT
SR IN
Q662,Q663 : REPEATER DRIVER
Q655 : MIXER
Q657 : BUFFER
Q664 : MUTE
IC657 : LEARNING PRESET U-COM
PD5320A
A(1:3)
ST
CLK
DT
BACK UP
RESET
IC656 : MONO STABLE MULTIVIBRATORS
IC656
PIN VOLT
2 0
3 5.1
4 5.1
5 0
9 0
10 0
IC657
PIN VOLT
1 0
2 0
3 0
11 5.0
13 5.0
15 5.0
17 5.0
19 5.0

SCH-4


IC508 : MAIN VIDEO SW
NJM2243L
SIGNAL ROUTE
(V) → : VIDEO SIGNAL ROUTE
MAIN MON
VCR2 REC
VCR1 REC
L506
L507
L518
Q505 2SA1115-T
Q506 2SA1115-T
75Ω DRIVER
BIAS
Vin1
CTL1
Vin2
CTL2
Vin3
V+
Vout
GND
CN602
AKT1012
CN601
J12
To C.G UCOM assy CN4502 (→SCH- 13)
To C.G UCOM assy CN4503 (→SCH- 13)
SYNC DET
GUI-REQ
GUI-CONT
GUI-DT
GUI-BUSY
OSD-CK
OSD-DT
OSD-CE
GUI-BUSY
200IB12L
SCH- 5)
To FL UCOM assy J137 (→SCH- 11)
BACK UP
L ST
L CLK
L DT
RESET
RMC MUTE
40K RMC
CN137
KPD7L
B(1:6)
A(1:3)
C(1:16)
D(1:2)
E(1:8)
MINI REPEATER
MAIN REPEATER
SR OUT
SR IN
Q663 : REPEATER DRIVER
Q657 : BUFFER
IC657 : LEARNING PRESET U-COM
PD5320A
IC658 : SRAM
LH5268AN
IC656 : MONO STABLE MULTIVIBRATORS
Q665 2SC3732
D659
D663
D660
D661
D664
D665
X651
CLK
ST
DT
BACK UP
RESET

IC506

PIN	VOLT
1	1.0
3	1.2
8	2.7
9	2.7
15	2.3
16	1.7
17	3.8
22	5.0
23	0.6
24	5.3
25	1.7

IC508

PIN	VOLT
1	7.8
2	4.8
3	7.7
4	0
5	7.7
6	12.7
7	6.9
8	0

IC508
NJM2243L

CTL1	CTL2	INPUT CONTROL-OUTPUT SIGNAL OUTPUT SIGNAL
L	L	Vin1
H	L	Vin2
L/H	H	Vin3

IC656

PIN	VOLT
2	0
3	5.1
4	5.1
5	0
9	0
10	0

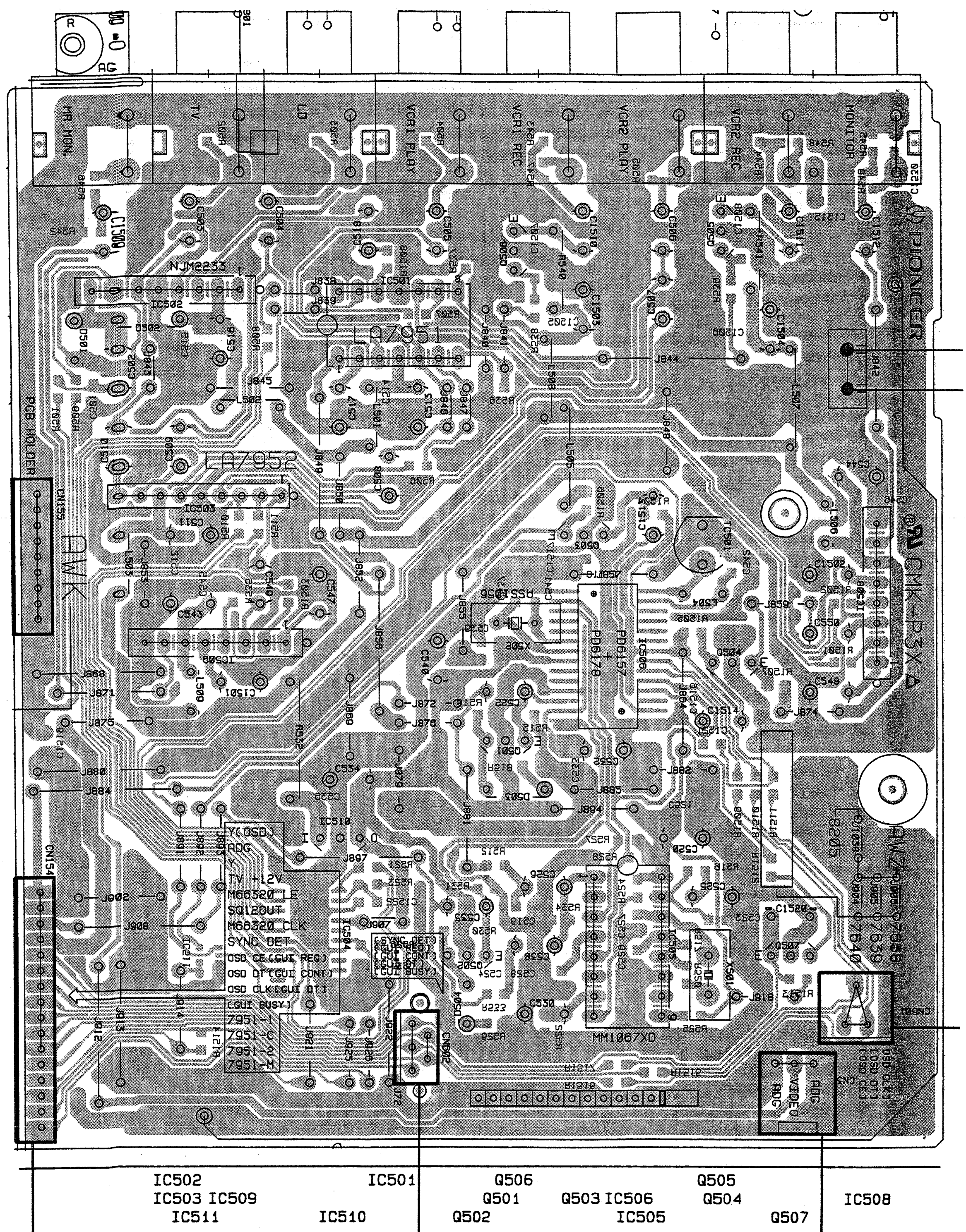
IC657

PIN	VOLT
1	0
2	0
3	0
11	5.0
13	5.0
15	5.0
17	5.0
19	5.0

VIDEO FUNCTION ASSY,
S+SR, MR, IR ASSY

- This diagram is viewed from the mounted parts side.

VIDEO FUNCTION ASSY


IC502
IC503 IC509
IC511
IC501
IC510
Q506
Q501
Q502
Q503 IC506
IC505
Q505
Q504
Q507
IC508

To AUDIO FUNCTION ASSY

To TONE ASSY TP151

To C. G UCOM ASSY CN4503

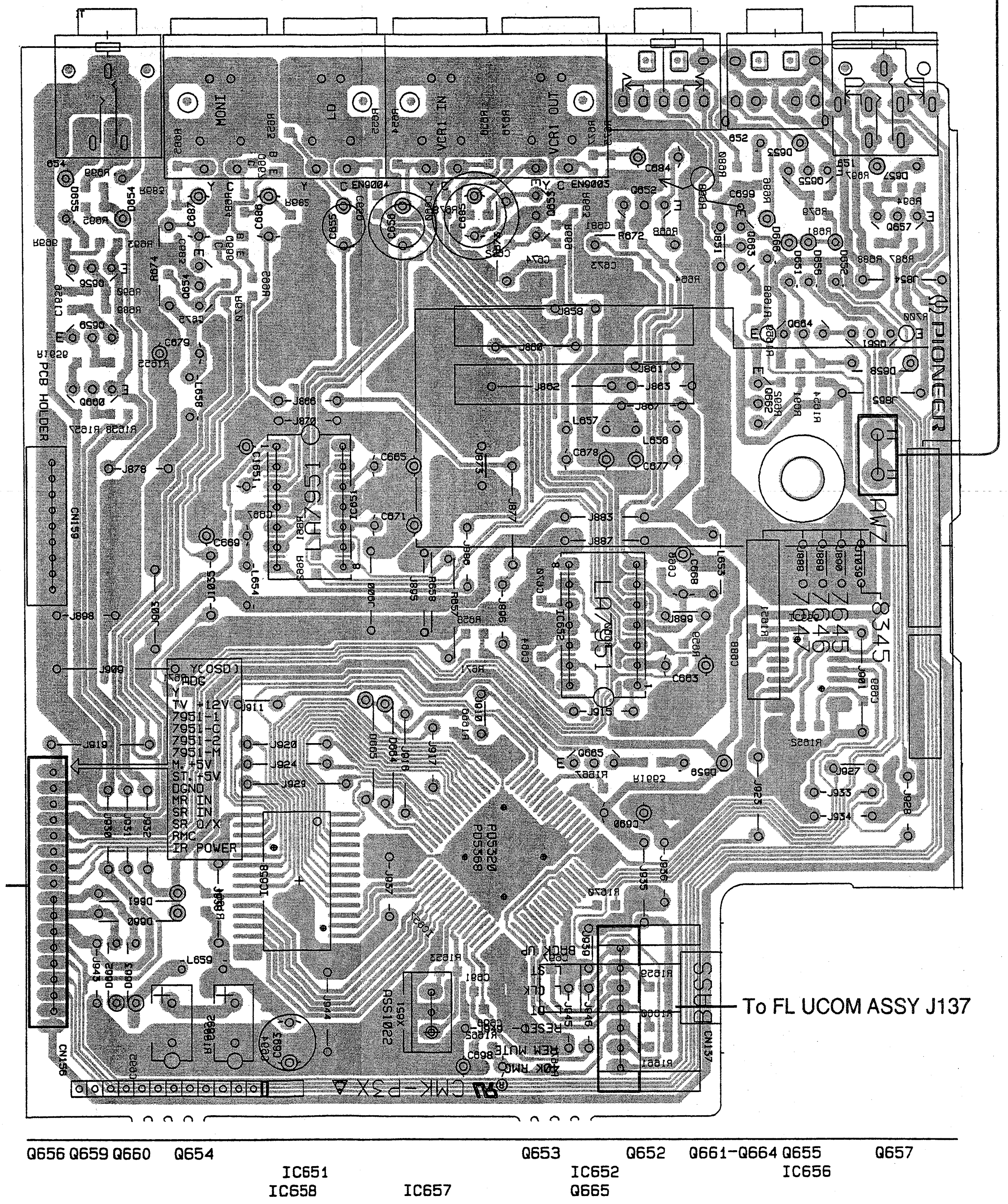
To VIDEO ASSY CN1

To C. G UCOM ASSY CN4502

To CONNECTION ASSY CN54

S+SR, MR, IR ASSY

To LOGIC ASSY

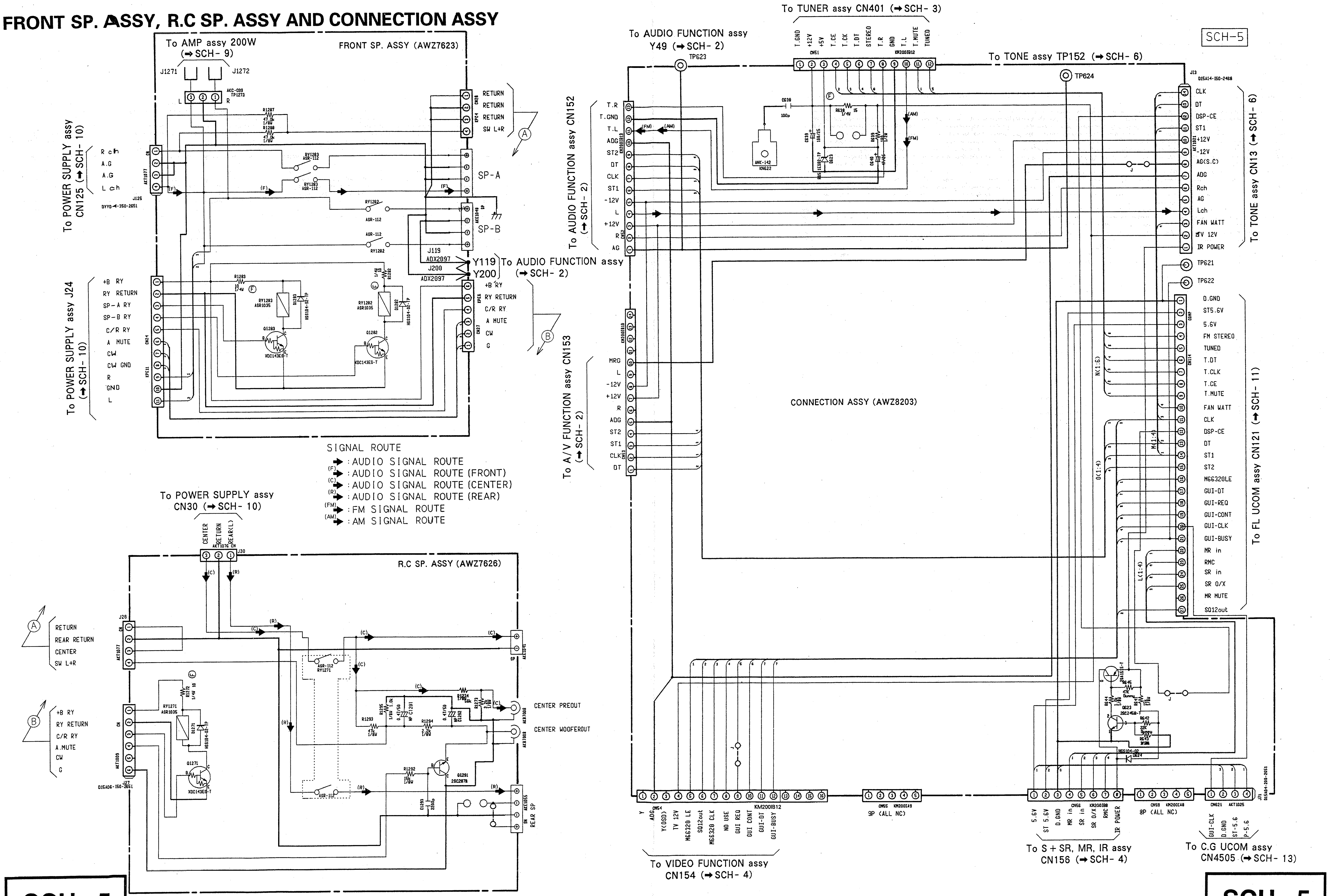

Q656 Q659 Q660
Q654
IC651
IC658
IC657
Q653
IC652
Q665
Q652
Q661–Q664 Q655
IC656
Q657

To CONNECTION ASSY CN56

To FL UCOM ASSY J137

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

3.5 FRONT SP. ASSY, R.C SP. ASSY AND CONNECTION ASSY

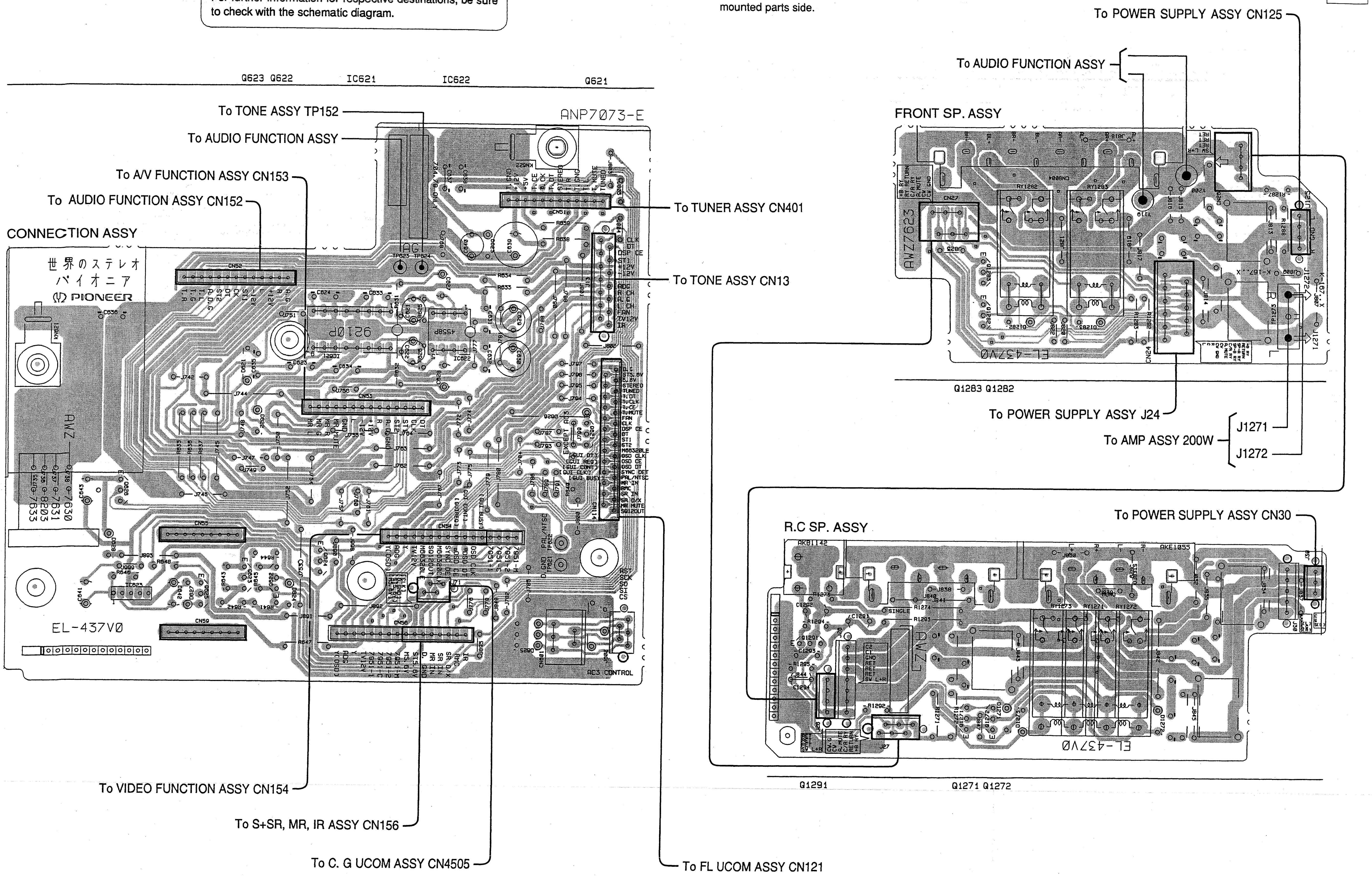

To AMP assy 200W
(→SCH- 9)
J1271
J1272
FRONT SP. ASSY (AWZ7623)
RETURN
RETURN
RETURN
SW L+R
SP-A
SP-B
Ⓐ
To POWER SUPPLY assy CN125 (→SCH- 10)
R ch
A.G
A.G
L ch
J125
RY1283
ASR-112
RY1282
ASR-112
J119
ADX2097
J200
ADX2097
Y119
Y200
To AUDIO FUNCTION assy
(→SCH- 2)
To POWER SUPPLY assy J24
(→SCH- 10)
+B RY
RY RETURN
SP-A RY
SP-B RY
C/R RY
A MUTE
CW
CW GND
R
GND
L
RY1283
ASR1035
Q1283
XDC143ES-T
RY1282
ASR1035
Q1282
XDC143ES-T
+B RY
RY RETURN
C/R RY
A MUTE
CW
G
Ⓑ
To POWER SUPPLY assy
CN30 (→SCH- 10)
CENTER
RETURN
REAR(L)
J30
R.C SP. ASSY (AWZ7626)
Ⓐ
RETURN
REAR RETURN
CENTER
SW L+R
J26
Ⓑ
+B RY
RY RETURN
C/R RY
A.MUTE
CW
G
RY1271
ASR1035
Q1271
XDC143ES-T
ASR-112
RY1271
Q1291
2SC2878
CENTER PREOUT
CENTER WOOFEROUT
REAR SP
To AUDIO FUNCTION assy
Y49 (→SCH- 2)
TP623
To TUNER assy CN401 (→SCH- 3)
T.GND
+12V
+5V
T.CE
T.CK
T.DT
STEREO
T.R
GND
T.L
T.MUTE
TUNED
CN51
KM200IB12
To TONE assy TP152 (→SCH- 6)
TP624
ANK-142
KN622
To AUDIO FUNCTION assy CN152
(→SCH- 2)
T.R
T.GND
T.L
ADG
ST2
DT
CLK
ST1
-12V
L
+12V
R
AG
J13
CLK
DT
DSP-CE
ST1
+12V
-12V
AG(S.C)
ADG
Rch
AG
Lch
FAN WATT
FV 12V
IR POWER
To TONE assy CN13 (→SCH- 6)
TP621
TP622
To A/V FUNCTION assy CN153
(→SCH- 2)
MRG
L
-12V
+12V
R
ADG
ST2
ST1
CLK
DT
CONNECTION ASSY (AWZ8203)
D.GND
ST5.6V
5.6V
FM STEREO
TUNED
T.DT
T.CLK
T.CE
T.MUTE
FAN WATT
CLK
DSP-CE
DT
ST1
ST2
M66320LE
GUI-DT
GUI-REQ
GUI-CONT
GUI-CLK
GUI-BUSY
MR in
RMC
SR in
SR O/X
MR MUTE
SQ12out
To FL UCOM assy CN121 (→SCH- 11)
CN54
KM200IB12
Y
ADG
Y(OSD)
TV 12V
M66320 LE
SQ12out
M66320 CLK
NO USE
GUI REQ
GUI CONT
GUI-DT
GUI-BUSY
To VIDEO FUNCTION assy
CN154 (→SCH- 4)
CN55
9P (ALL NC)
5.6V
ST 5.6V
D.GND
MR in
SR in
SR O/X
RMC
IR POWER
CN56
To S+SR, MR, IR assy
CN156 (→SCH- 4)
CN58
8P (ALL NC)
CN621
GUI-CLK
D.GND
ST-5.6
P-5.6
J71
To C.G UCOM assy
CN4505 (→SCH- 13)

SIGNAL ROUTE

- ➡ : AUDIO SIGNAL ROUTE
- (F)➡ : AUDIO SIGNAL ROUTE (FRONT)
- (C)➡ : AUDIO SIGNAL ROUTE (CENTER)
- (R)➡ : AUDIO SIGNAL ROUTE (REAR)
- (FM)➡ : FM SIGNAL ROUTE
- (AM)➡ : AM SIGNAL ROUTE

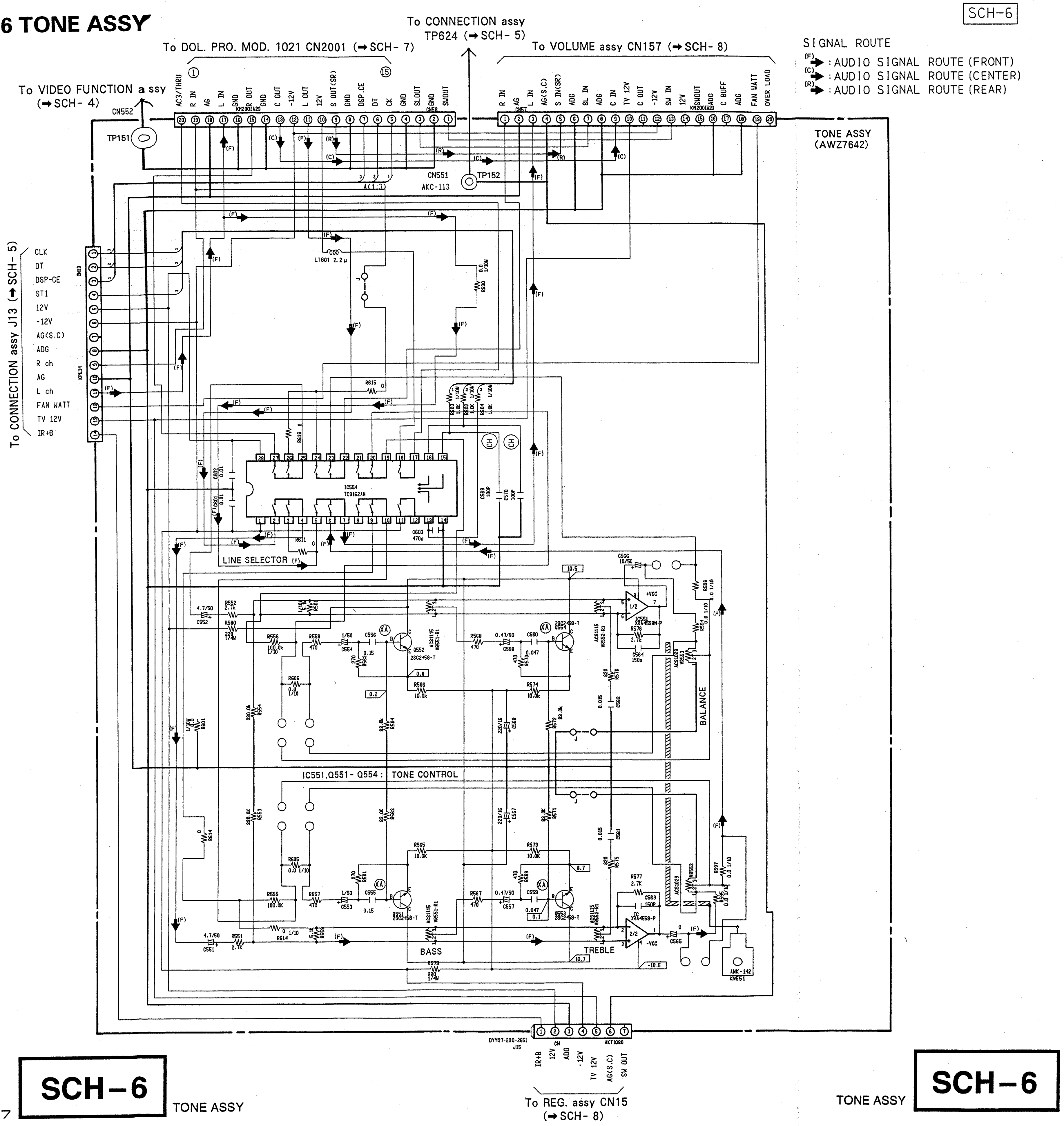
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the mounted parts side.

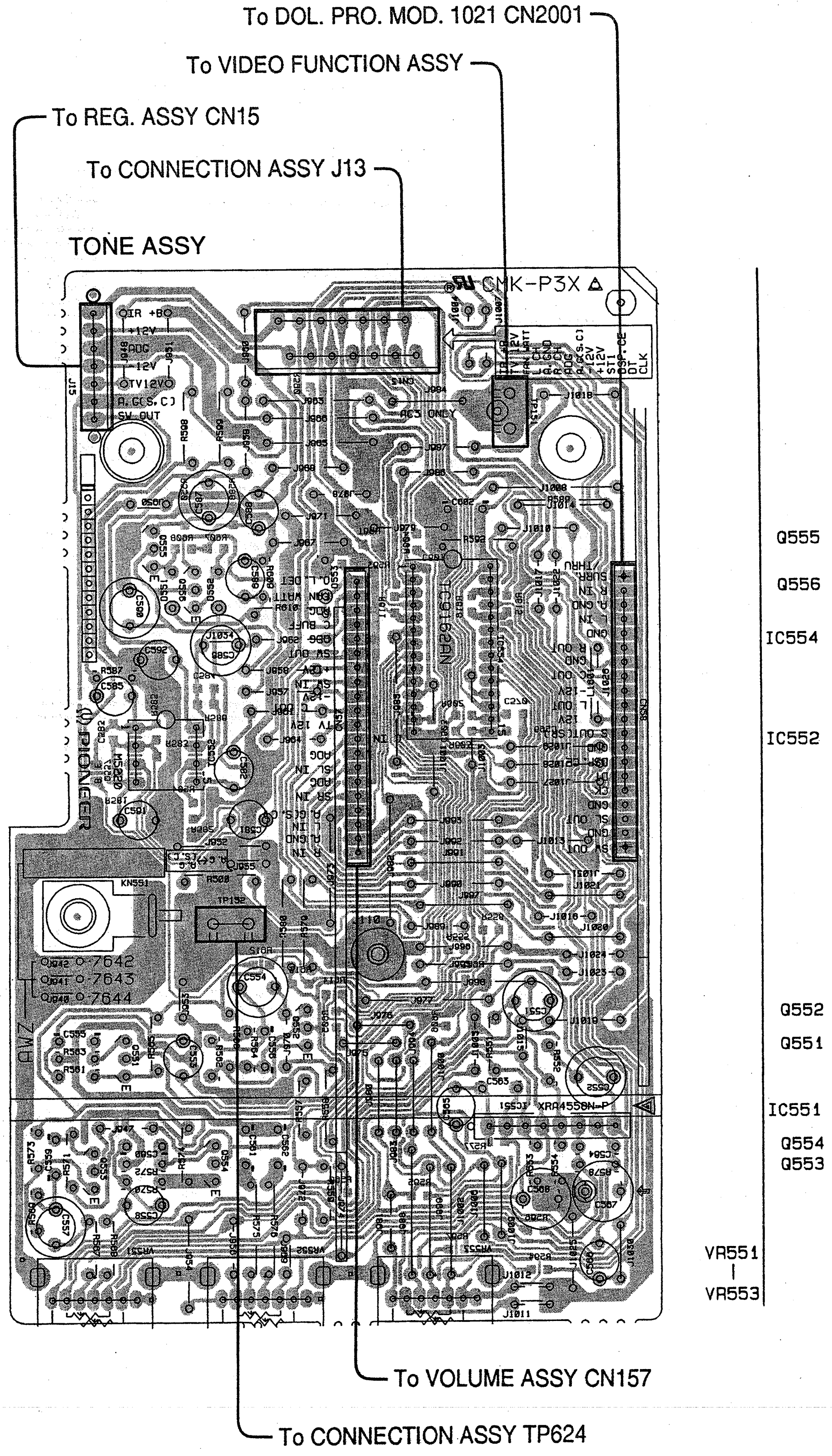

Q623 Q622
IC621
IC622
Q621
ANP7073-E
To TONE ASSY TP152
To AUDIO FUNCTION ASSY
To A/V FUNCTION ASSY CN153
To AUDIO FUNCTION ASSY CN152
CONNECTION ASSY
世界のステレオ
パイオニア
PIONEER
To TUNER ASSY CN401
To TONE ASSY CN13
EL-437V0
AC3 CONTROL
To VIDEO FUNCTION ASSY CN154
To S+SR, MR, IR ASSY CN156
To C. G UCOM ASSY CN4505
To FL UCOM ASSY CN121
To POWER SUPPLY ASSY CN125
To AUDIO FUNCTION ASSY
FRONT SP. ASSY
AWZ7623
Q1283 Q1282
To POWER SUPPLY ASSY J24
J1271
To AMP ASSY 200W
J1272
To POWER SUPPLY ASSY CN30
R.C SP. ASSY
AKB1142
AKE1055
Q1291
Q1271 Q1272

3.6 TONE ASSY

SCH-6


To CONNECTION assy
TP624 (→SCH-5)
To DOL. PRO. MOD. 1021 CN2001 (→SCH-7)
To VOLUME assy CN157 (→SCH-8)
SIGNAL ROUTE
(F) : AUDIO SIGNAL ROUTE (FRONT)
(C) : AUDIO SIGNAL ROUTE (CENTER)
(R) : AUDIO SIGNAL ROUTE (REAR)
To VIDEO FUNCTION assy
(→SCH-4)
CN552
TP151
AC3/THRU
R IN
AG
L IN
GND
SW OUT
GND
C OUT
-12V
L OUT
12V
S OUT(SR)
GND
DSP.CE
DT
CK
GND
SLOUT
GND
SWOUT
CN58
CN57
AG(S.C)
S IN(SR)
ADG
SL IN
C IN
TV 12V
SW IN
SWOUT
C BUFF
FAN WATT
OVER LOAD
TONE ASSY
(AWZ7642)
CN551
AKC-113
TP152
To CONNECTION assy J13 (→SCH-5)
CLK
DT
DSP-CE
ST1
12V
-12V
AG(S.C)
ADG
R ch
AG
L ch
FAN WATT
TV 12V
IR+B
L1601 2.2μ
IC554
TC9162AN
LINE SELECTOR
IC551
XR4558N-P
BALANCE
IC551,Q551 - Q554 : TONE CONTROL
BASS
TREBLE
ANK-142
KN551
DYY07-200-2651
J15
AKT1080
IR+B
12V
ADG
-12V
TV 12V
AG(S.C)
SW OUT
To REG. assy CN15
(→SCH-8)

- This diagram is viewed from the mounted parts side.


To DOL. PRO. MOD. 1021 CN2001
To VIDEO FUNCTION ASSY
To REG. ASSY CN15
To CONNECTION ASSY J13
TONE ASSY
GMK-P3X
PIONEER
AWZ
7642
7643
7644
IC9162AN
XRA4558N-P
Q555
Q556
IC554
IC552
Q552
Q551
IC551
Q554
Q553
VR551
VR553
To VOLUME ASSY CN157
To CONNECTION ASSY TP624

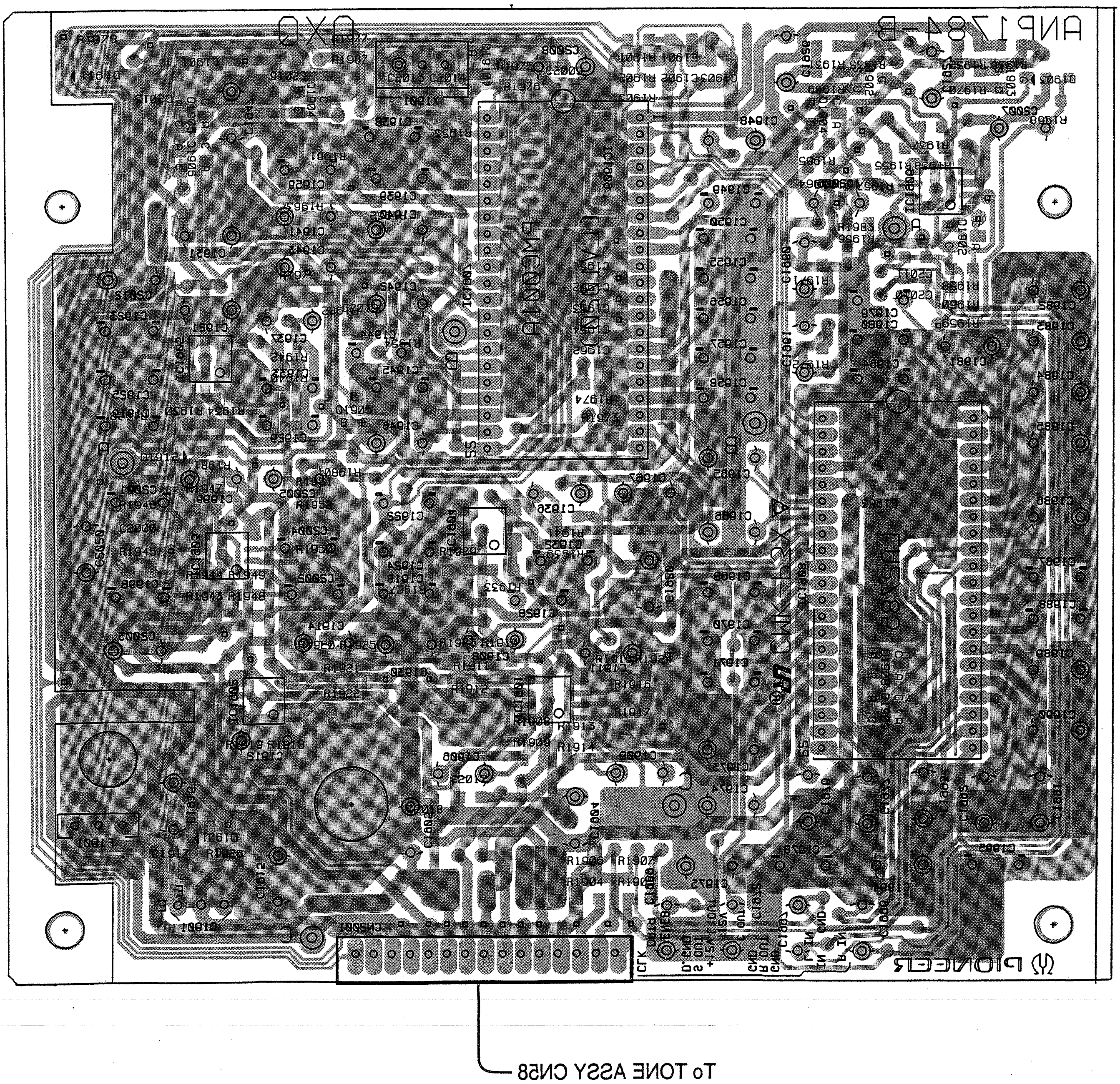
3.7 DOL. PRO. MOD. 1021

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Q1903 IC1906 Q1902 IC1907 Q1905 Q1904 IC1905

IC1908 IC1901 IC1904 IC1902 IC1903 Q1901

DOL. PRO. MOD. 1021



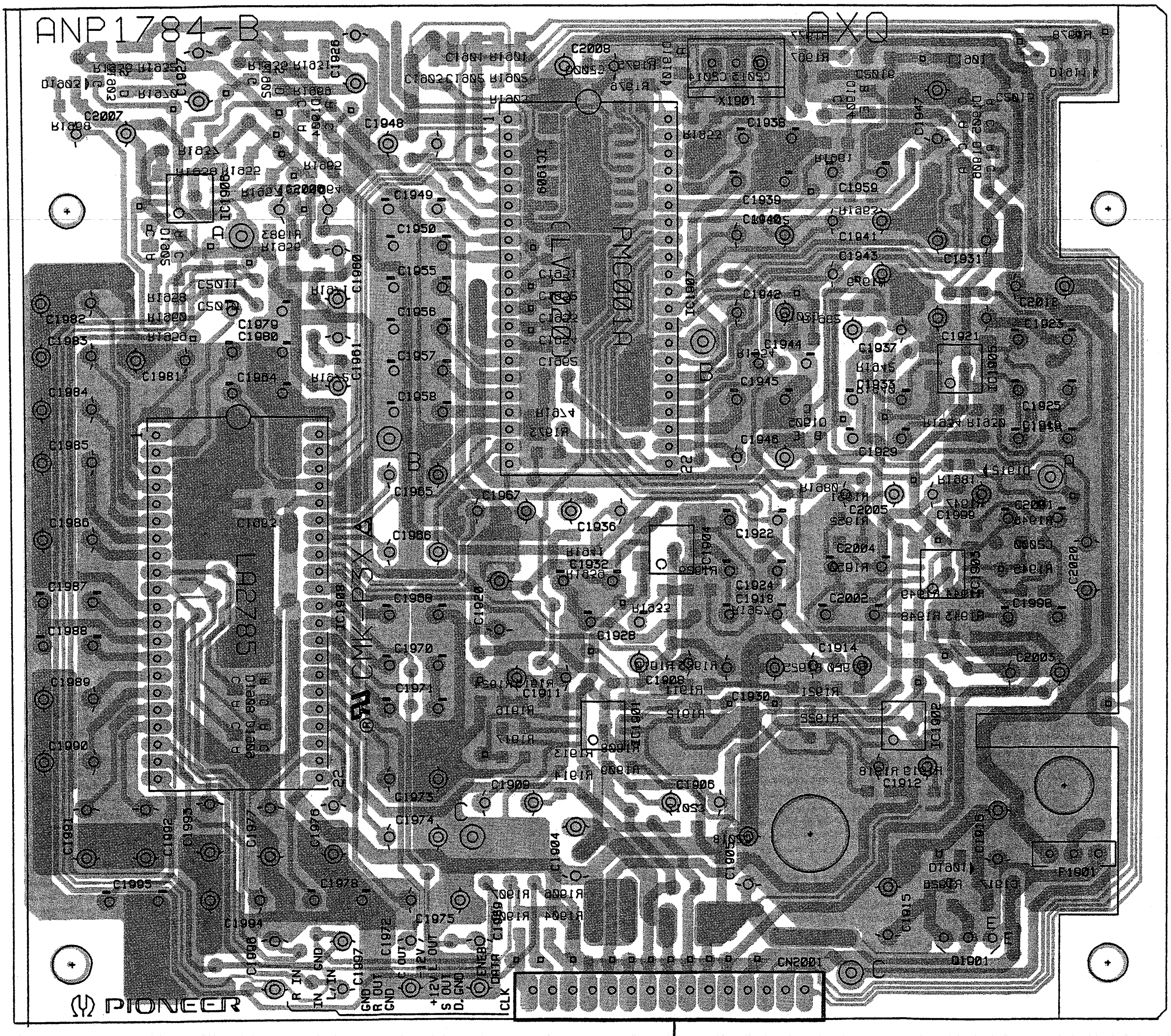
- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.

3.7 DOL. PRO. MOD. 1021

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Q1903 IC1906 Q1902 IC1908 IC1907 IC1901 IC1904 Q1905 Q1904 IC1902 IC1905 IC1903 Q1901

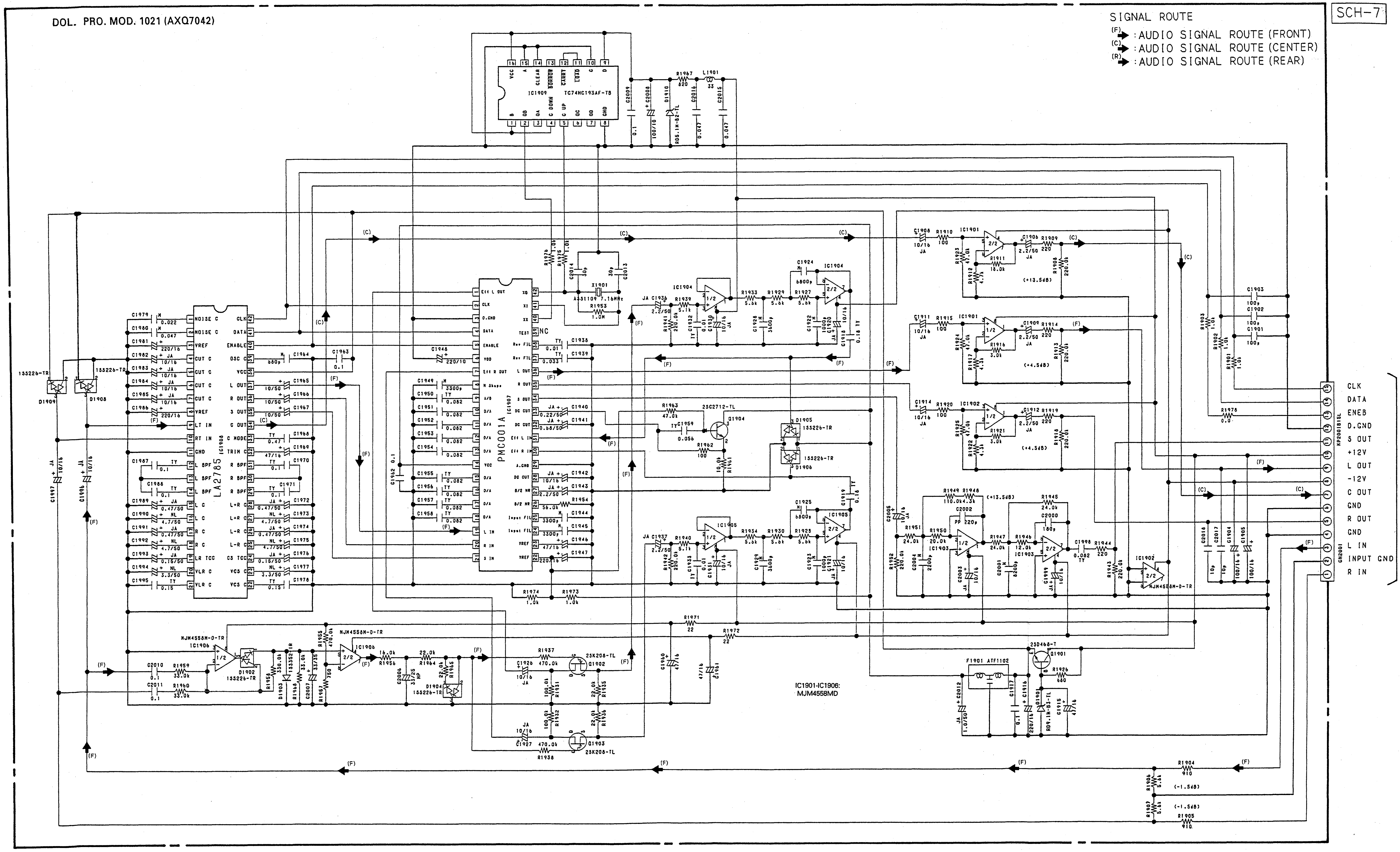
DOL. PRO. MOD. 1021


ANP1784-B
AXO
PMC001A
LA2785
CN2001
PIONEER
R IN
GND
L IN
GND
R OUT
GND
L OUT
+12V
S OUT
D.GND
CENTER
DATA
CLK
X1901
C2008
C1948
C1949
C1950
C1955
C1956
C1957
C1958
C1965
C1966
C1967
C1968
C1970
C1971
C1973
C1974
C1975
C1976
C1977
C1978
C1982
C1983
C1984
C1985
C1986
C1987
C1988
C1989
C1990
C1991
C1992
C1993
C1994
C1995
C1938
C1939
C1941
C1942
C1943
C1944
C1945
C1946
C1931
C1937
C1921
C1922
C1924
C1928
C1929
C1930
C1932
C1936
C1914
C1912
C1915
C2004
C2005
C2002
C2003
C2018
C2020
F1901
Q1901

To TONE ASSY CN58

- This diagram is viewed from the pink colored foil side.
- This PCB is double sided.

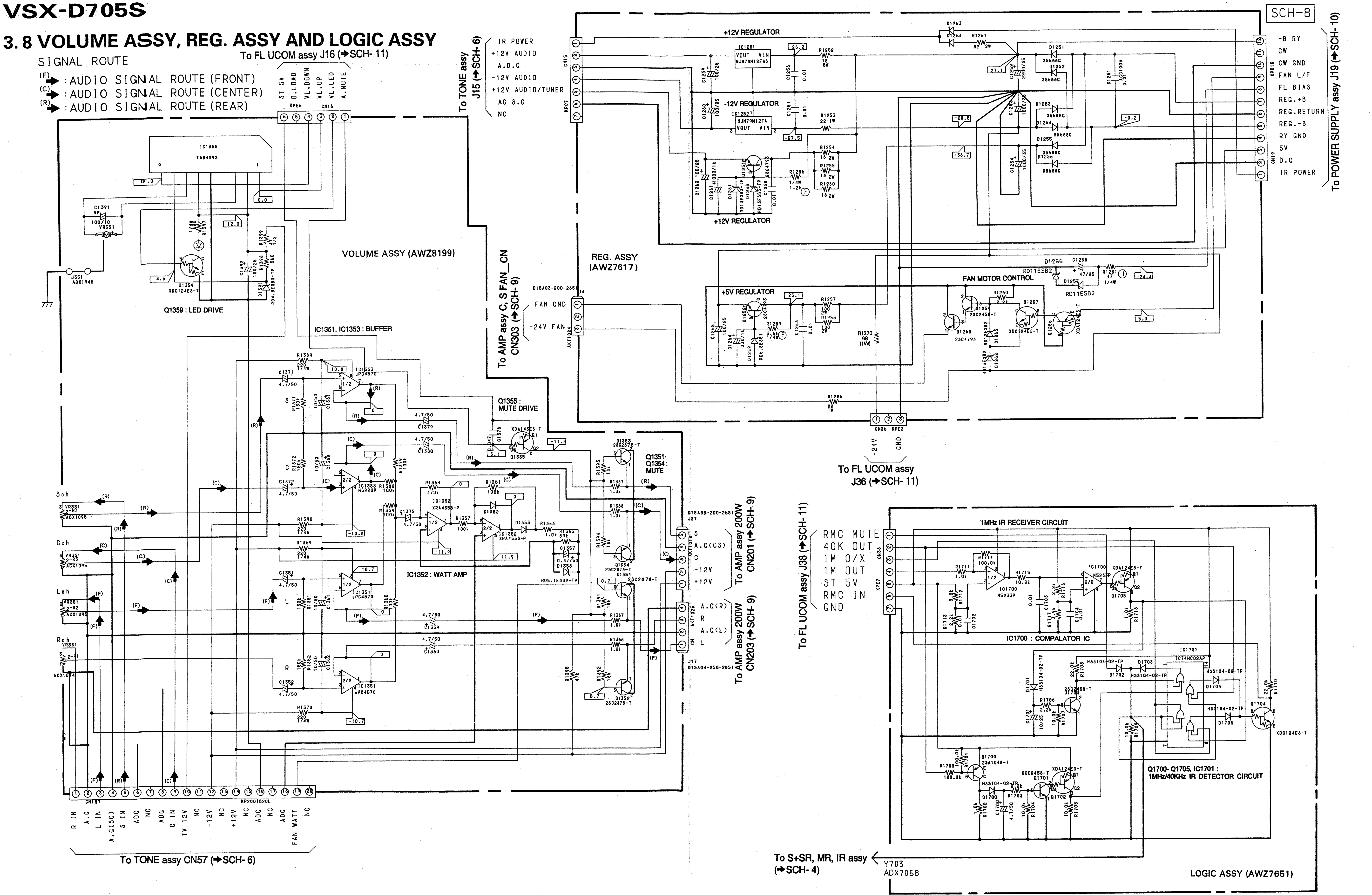
DOL. PRO. MOD. 1021 (AXQ7042)


SCH-7
SIGNAL ROUTE
(F) :AUDIO SIGNAL ROUTE (FRONT)
(C) :AUDIO SIGNAL ROUTE (CENTER)
(R) :AUDIO SIGNAL ROUTE (REAR)
IC1909 TC74HC193AF-T8
IC1908 LA2785
IC1907 PMC001A
X1901 A3S1109 7.16MHz
IC1901
IC1902
IC1903
IC1904
IC1905
IC1906 NJM4558M-D-TR
Q1901 2SD468-T
Q1902 2SK208-TL
Q1903 2SK208-TL
Q1904 2SC2712-TL
F1901 ATF1102
(+13.5dB)
(+4.5dB)
(-1.5dB)
IC1901-IC1906: MJM4558MD
CN2001
CLK
DATA
ENEB
D.GND
S OUT
+12V
L OUT
-12V
C OUT
GND
R OUT
GND
L IN
INPUT GND
R IN
To TONE assy CN58 (→SCH-6)

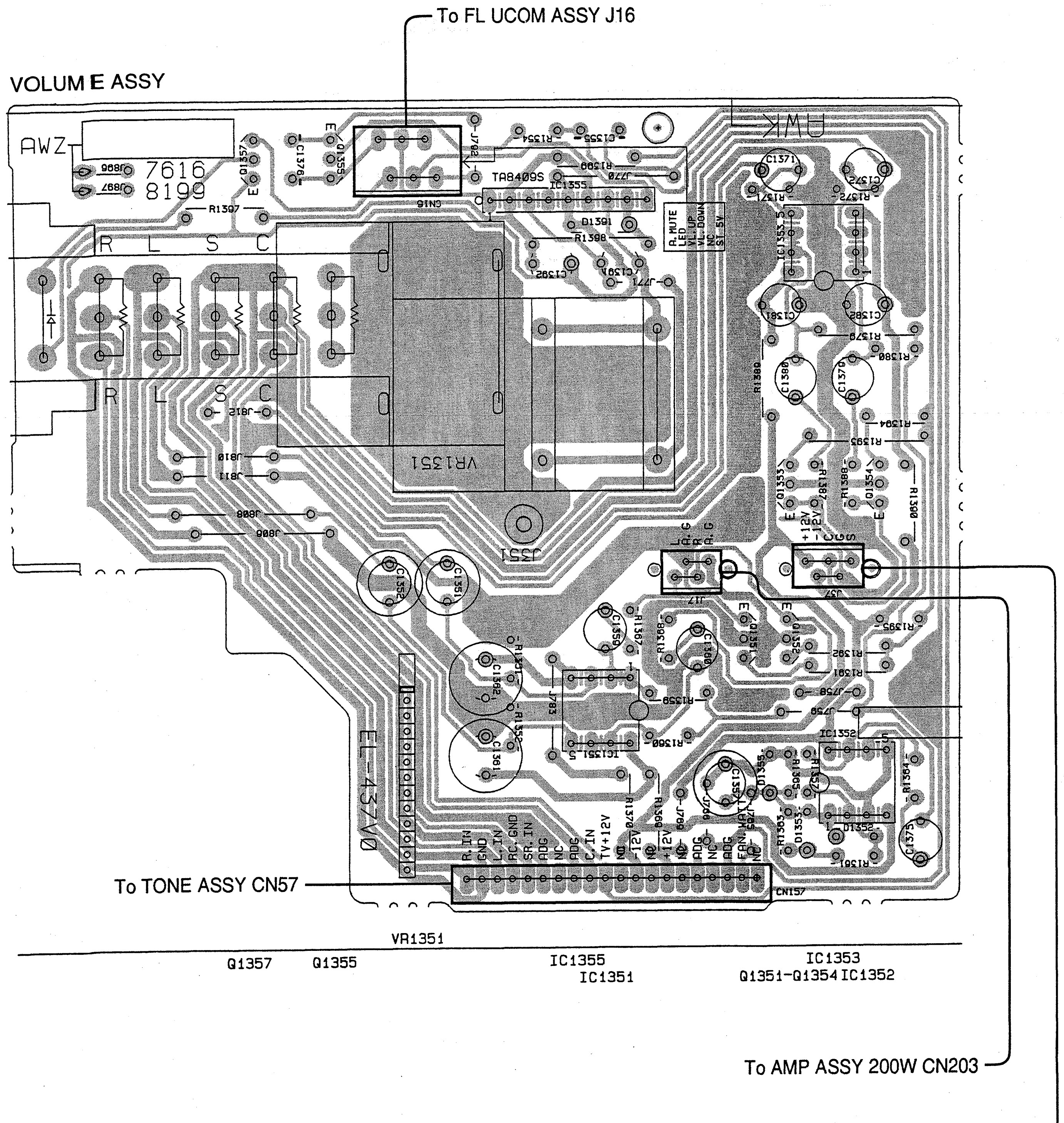
SCH-7

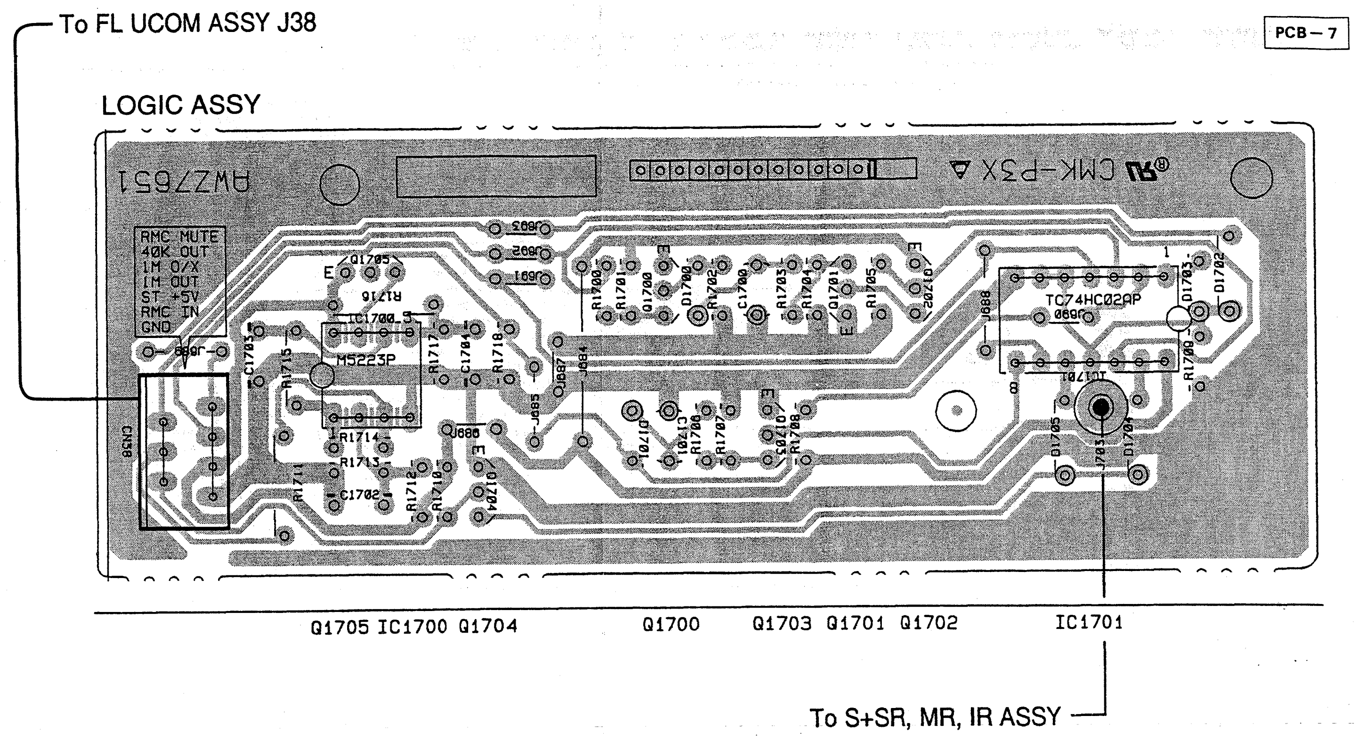
DOL. PRO. MOD. 1021

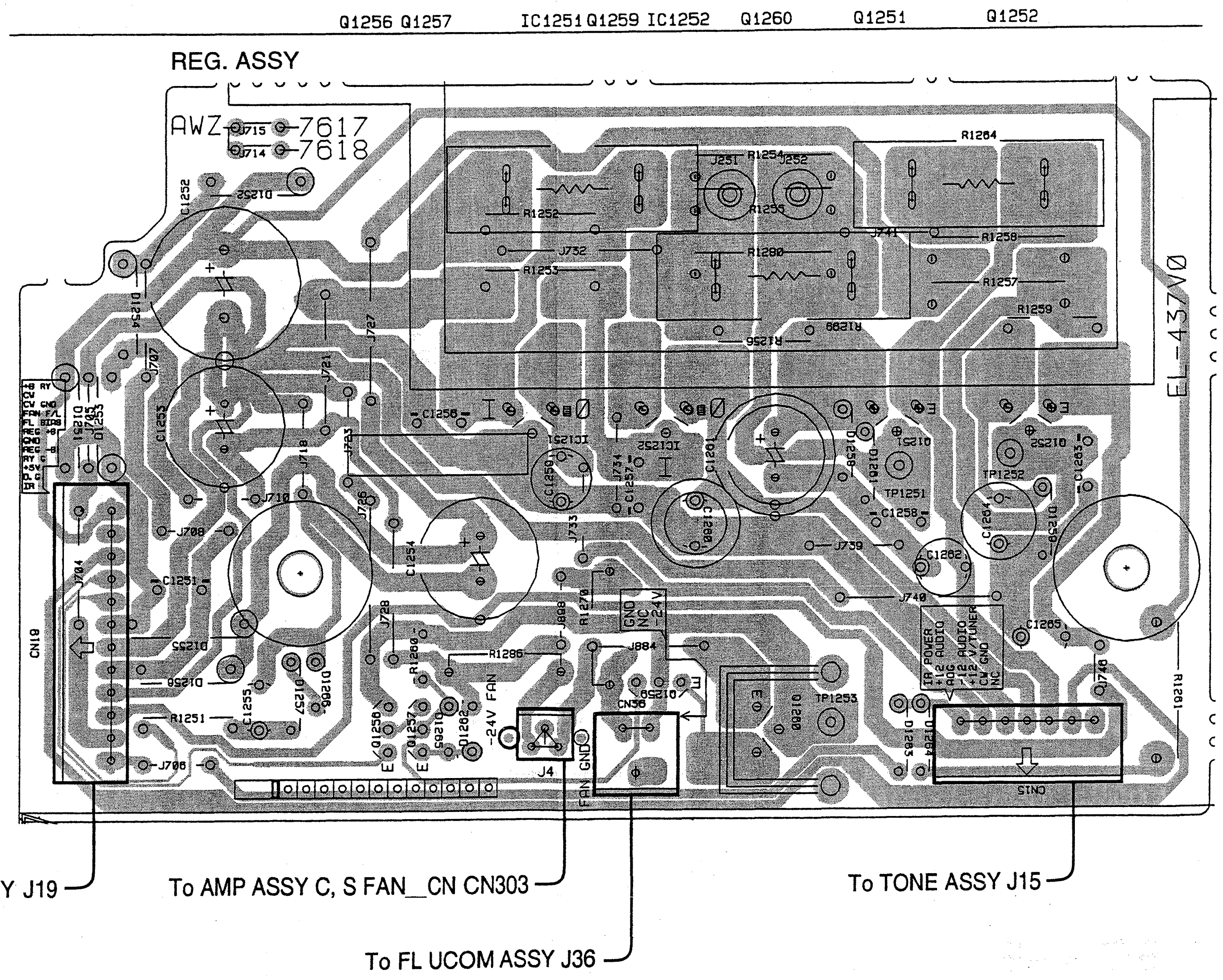
3.8 VOLUME ASSY, REG. ASSY AND LOGIC ASSY


SIGNAL ROUTE
(F) : AUDIO SIGNAL ROUTE (FRONT)
(C) : AUDIO SIGNAL ROUTE (CENTER)
(R) : AUDIO SIGNAL ROUTE (REAR)
To FL UCOM assy J16 (→SCH- 11)
ST 5V
D.LOAD
VL.DOWN
VL.UP
VL.LED
A.MUTE
KPE6
CN16
IC1355
TA8409S
Q1359 : LED DRIVE
VOLUME ASSY (AWZ8199)
IC1351, IC1353 : BUFFER
IC1352 : WATT AMP
Q1355 : MUTE DRIVE
Q1351-Q1354 : MUTE
Sch
Cch
Lch
Rch
VR351
ACX1095
J351
ADX1945
CN57
KP200182OL
R IN
A.C
L IN
A.C(SC)
S IN
ADG
NC
C IN
TV 12V
-12V
+12V
FAN WATT
To TONE assy CN57 (→SCH- 6)
To TONE assy J15 (→SCH- 6)
IR POWER
+12V AUDIO
A.D.G
-12V AUDIO
+12V AUDIO/TUNER
AC S.C
NC
CN15
KP27
+12V REGULATOR
-12V REGULATOR
IC1251
NJM78M12FA
IC1252
NJM79M12FA
+5V REGULATOR
FAN MOTOR CONTROL
REG. ASSY (AWZ7617)
SCH-8
+B RY
CW
CW GND
FAN L/F
FL BIAS
REG.+B
REG.RETURN
REG.-B
RY GND
5V
D.G
IR POWER
KPE12
CN19
To POWER SUPPLY assy J19 (→SCH- 10)
To AMP assy C, S FAN_CN CN303 (→SCH- 9)
FAN GND
-24V FAN
AKT1024
CN36
KPE3
-24V
GND
To FL UCOM assy J36 (→SCH- 11)
J37
D15A05-200-2651
S
A.G(CS)
C
-12V
+12V
To AMP assy 200W CN201 (→SCH- 9)
A.G(R)
R
A.G(L)
L
J17
D15A04-250-2651
To AMP assy 200W CN203 (→SCH- 9)
To FL UCOM assy J38 (→SCH- 11)
RMC MUTE
40K OUT
1M O/X
1M OUT
ST 5V
RMC IN
GND
CN38
KPE7
1MHz IR RECEIVER CIRCUIT
IC1700 : COMPALATOR IC
IC1701
TC74HC02AP
Q1700- Q1705, IC1701 : 1MHz/40KHz IR DETECTOR CIRCUIT
To S+SR, MR, IR assy (→SCH- 4)
Y703
ADX7068
LOGIC ASSY (AWZ7651)

- This diagram is viewed from the mounted parts side.

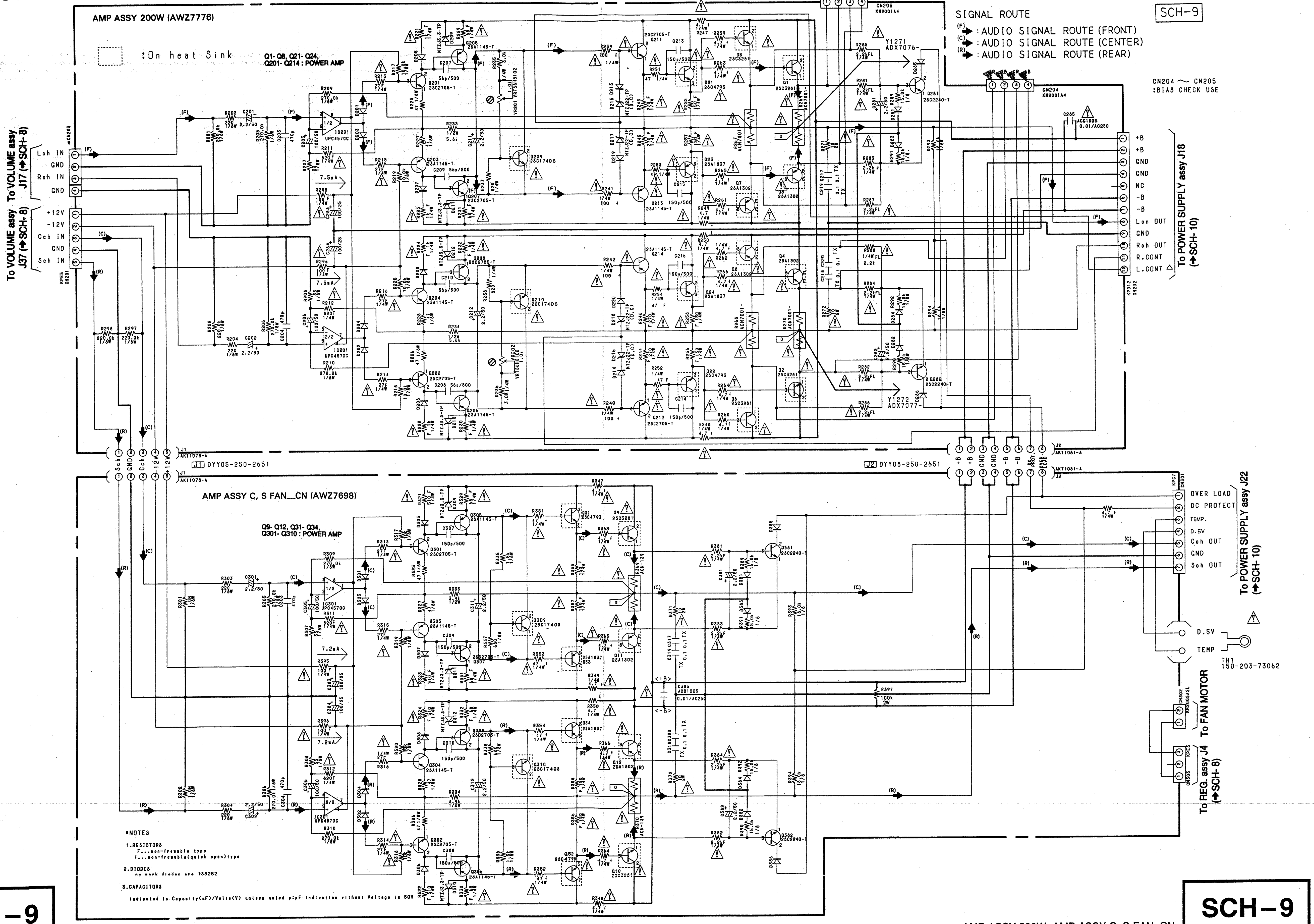

To FL UCOM ASSY J16
VOLUME ASSY
AWZ 7616 8199
TA8409S
IC1355
VR1351
J351
EL-437V0
CN157
To TONE ASSY CN57
VR1351
Q1357
Q1355
IC1355
IC1351
IC1353
Q1351–Q1354
IC1352
To AMP ASSY 200W CN203


To FL UCOM ASSY J38
LOGIC ASSY
AWZ7651
CMK-P3X
RMC MUTE
40K OUT
1M O/X
1M OUT
ST +5V
RMC IN
GND
M5223P
TC74HC02AP
CN3
Q1705
IC1700
Q1704
Q1700
Q1703
Q1701
Q1702
IC1701
To S+SR, MR, IR ASSY


Q1256
Q1257
IC1251
Q1259
IC1252
Q1260
Q1251
Q1252
REG. ASSY
AWZ 7617 7618
EL-437V0
CN10
J4
CN36
CN5
To AMP ASSY 200W CN201
To POWER SUPPLY ASSY J19
To AMP ASSY C, S FAN__CN CN303
To TONE ASSY J15
To FL UCOM ASSY J36

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

3.9 AMP ASSY 200W AND AMP ASSY C, S FAN_CN


AMP ASSY 200W (AWZ7776)
:On heat Sink
Q1- Q8, Q21- Q24, Q201- Q214 : POWER AMP
SCH-9
SIGNAL ROUTE
(F) : AUDIO SIGNAL ROUTE (FRONT)
(C) : AUDIO SIGNAL ROUTE (CENTER)
(R) : AUDIO SIGNAL ROUTE (REAR)
CN204 ~ CN205 :BIAS CHECK USE
CN205 KM200IA4
CN204 KM200IA4
Y1271 ADX7076-
Y1272 ADX7077-
IC201 UPC4570C
To VOLUME assy J17 (→SCH-8)
Lch IN
GND
Rch IN
GND
To VOLUME assy J37 (→SCH-8)
+12V
-12V
Cch IN
GND
Sch IN
To POWER SUPPLY assy J18 (→SCH-10)
+B
+B
GND
GND
NC
-B
-B
Lch OUT
GND
Rch OUT
R.CONT
L.CONT
J1 AKT1078-A
J1 DYY05-250-2651
J2 AKT1081-A
J2 DYY08-250-2651
Sch
GND
Cch
12V
-12V
+B
+B
GND
GND
-B
-B
DC PROT.
AMP ASSY C, S FAN_CN (AWZ7698)
Q9- Q12, Q31- Q34, Q301- Q310 : POWER AMP
IC301 UPC4570C
To POWER SUPPLY assy J22 (→SCH-10)
OVER LOAD
DC PROTECT
TEMP.
D.5V
Cch OUT
GND
Sch OUT
D.5V
TEMP
TH1 150-203-73062
To FAN MOTOR
To REG. assy J4 (→SCH-8)

*NOTES

1.RESISTORS
F...non-fireable type
f...non-fireable(quick open)type

2.DIODES
no mark diodes are 1SS252

3.CAPACITORS
indicated in Capacity(uF)/Volts(V) unless noted p:pF indication without Voltage is 50V

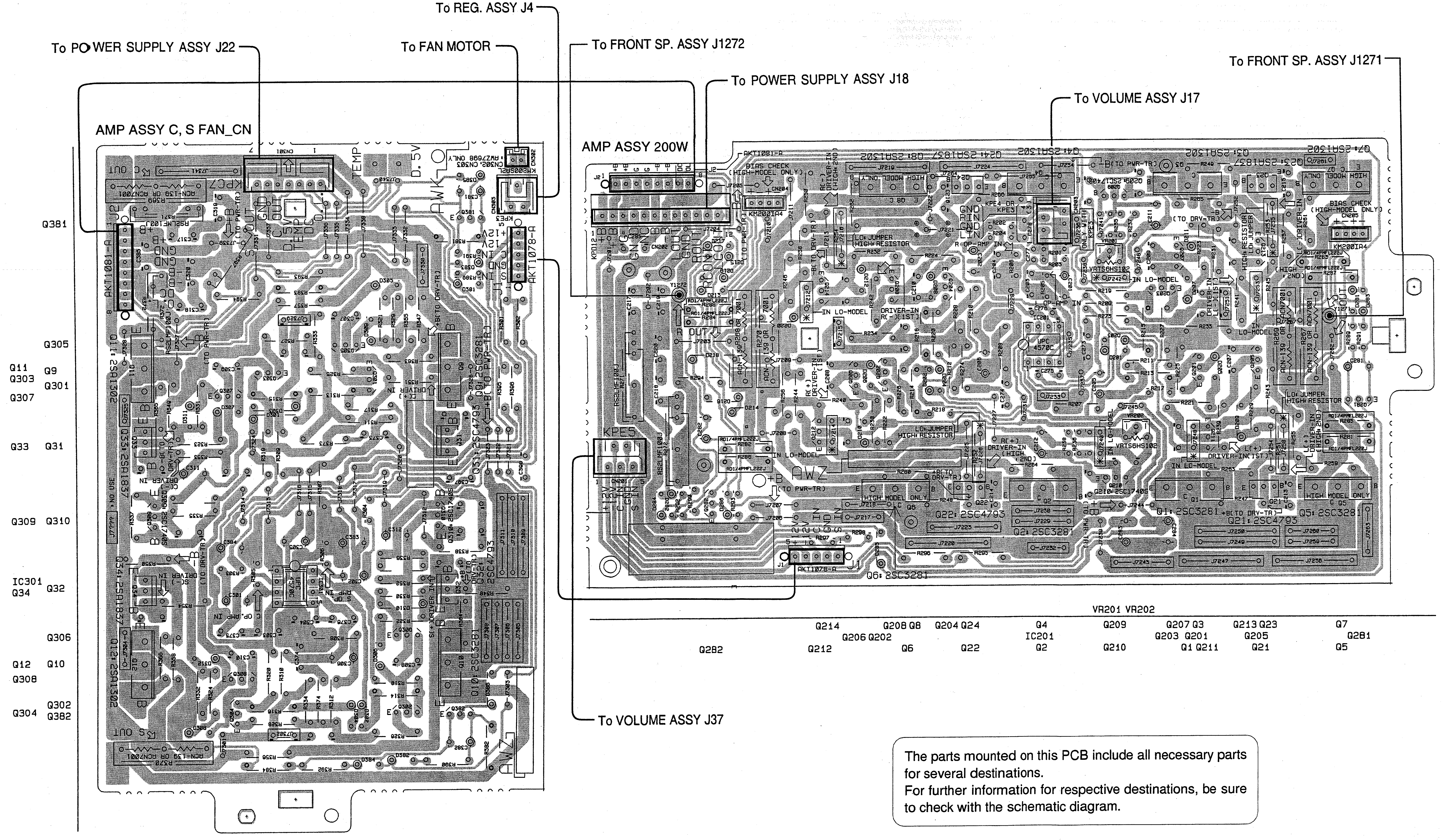
SCH-9

AMP ASSY 200W, AMP ASSY C, S FAN_CN

SCH-9

AMP ASSY 200W, AMP ASSY C, S FAN_CN

- This diagram is viewed from the mounted parts side.



To POWER SUPPLY ASSY J22

To FAN MOTOR

To REG. ASSY J4

To FRONT SP. ASSY J1272

To POWER SUPPLY ASSY J18

To VOLUME ASSY J17

To FRONT SP. ASSY J1271

To VOLUME ASSY J37

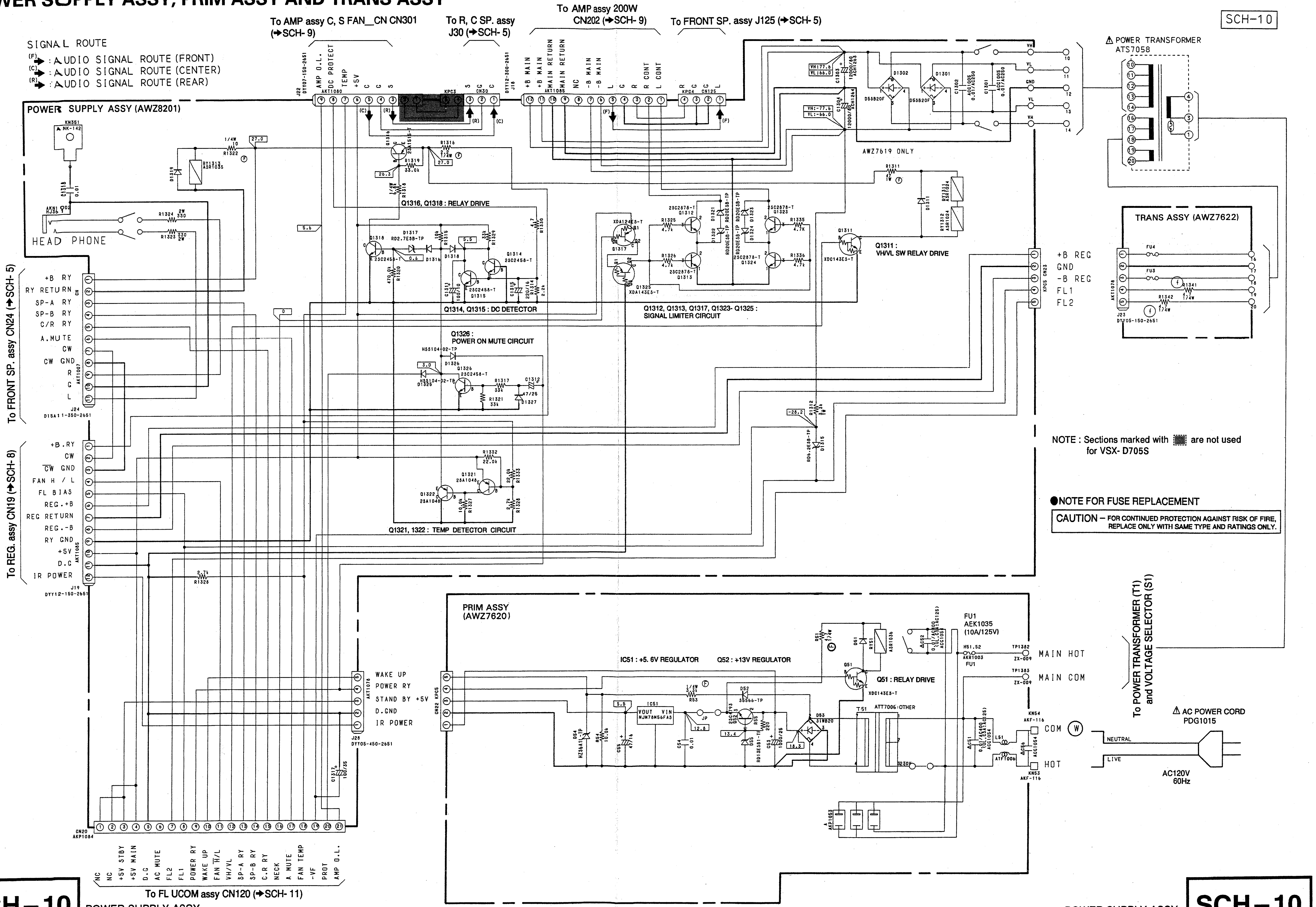
AMP ASSY C, S FAN_CN

AMP ASSY 200W

Q381
Q305
Q11 Q9
Q303 Q301
Q307
Q33 Q31
Q309 Q310
IC301
Q34 Q32
Q306
Q12 Q10
Q308
Q302
Q304 Q382
VR201 VR202
Q214
Q208 Q8
Q204 Q24
Q4
Q209
Q207 Q3
Q213 Q23
Q7
Q206 Q202
IC201
Q203 Q201
Q205
Q281
Q282
Q212
Q6
Q22
Q2
Q210
Q1 Q211
Q21
Q5
AKT1081-A
AKT1078-A
KM200IA4

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

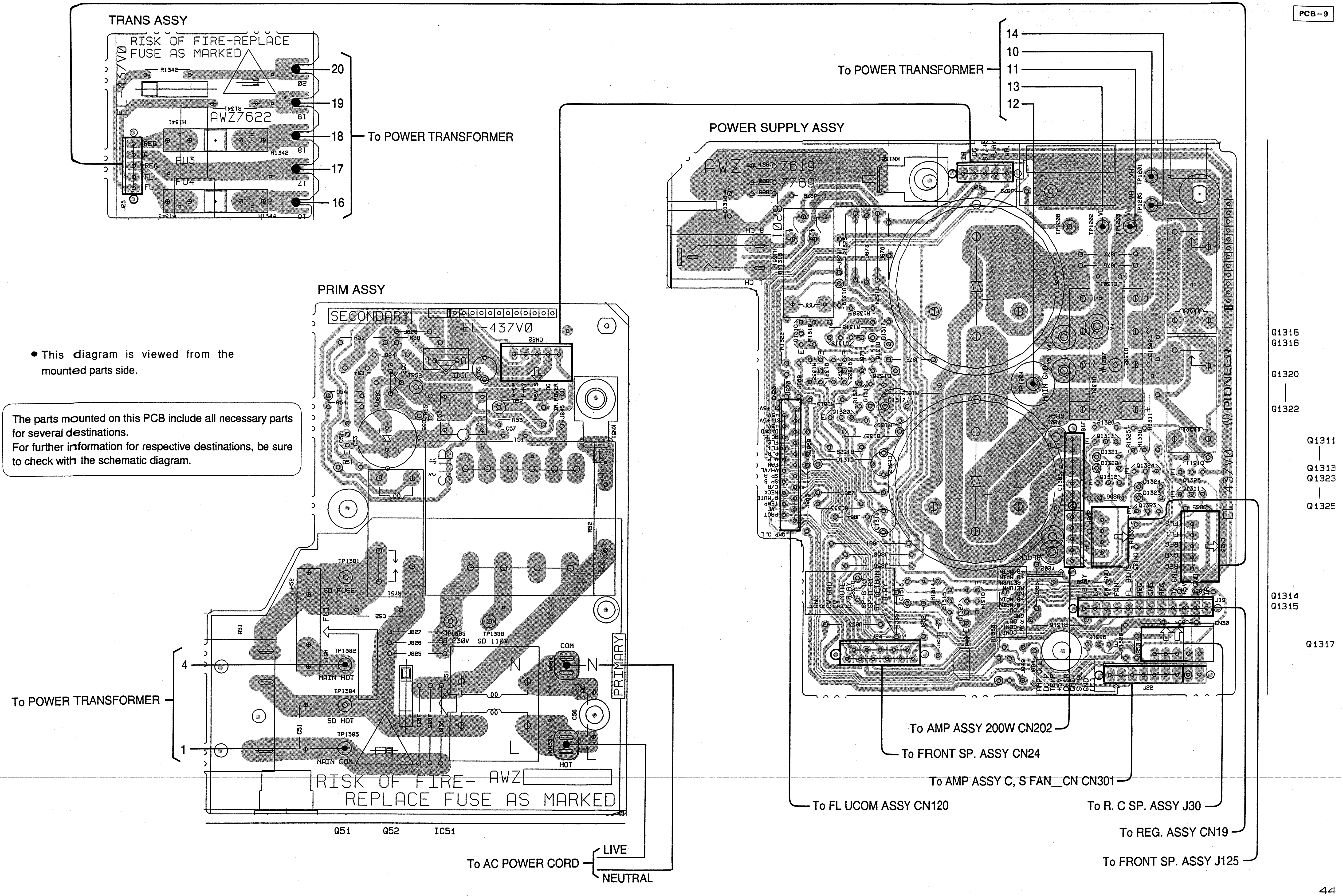
3.10 POWER SUPPLY ASSY, PRIM ASSY AND TRANS ASSY


SIGNAL ROUTE
(F) : AUDIO SIGNAL ROUTE (FRONT)
(C) : AUDIO SIGNAL ROUTE (CENTER)
(R) : AUDIO SIGNAL ROUTE (REAR)
To AMP assy C, S FAN_CN CN301 (➔SCH- 9)
To R, C SP. assy J30 (➔SCH- 5)
To AMP assy 200W CN202 (➔SCH- 9)
To FRONT SP. assy J125 (➔SCH- 5)
POWER SUPPLY ASSY (AWZ8201)
AMP O.L.
DC PROTECT
TEMP
+5V
+B MAIN
MAIN RETURN
NC
-B MAIN
R CONT
L CONT
HEAD PHONE
Q1316, Q1318 : RELAY DRIVE
Q1314, Q1315 : DC DETECTOR
Q1326 : POWER ON MUTE CIRCUIT
Q1312, Q1313, Q1317, Q1323- Q1325 : SIGNAL LIMITER CIRCUIT
Q1311 : VH/VL SW RELAY DRIVE
Q1321, 1322 : TEMP DETECTOR CIRCUIT
AWZ7619 ONLY
To FRONT SP. assy CN24 (➔SCH- 5)
+B RY
RY RETURN
SP-A RY
SP-B RY
C/R RY
A.MUTE
CW
CW GND
R
C
L
To REG. assy CN19 (➔SCH- 8)
+B.RY
CW
CW GND
FAN H / L
FL BIAS
REG.+B
REG RETURN
REG.-B
RY GND
+5V
D.G
IR POWER
⚠ POWER TRANSFORMER ATS7058
TRANS ASSY (AWZ7622)
+B REG
GND
-B REG
FL1
FL2
PRIM ASSY (AWZ7620)
IC51 : +5. 6V REGULATOR
Q52 : +13V REGULATOR
Q51 : RELAY DRIVE
WAKE UP
POWER RY
STAND BY +5V
D.GND
IR POWER
FU1 AEK1035 (10A/125V)
MAIN HOT
MAIN COM
COM
HOT
NEUTRAL
LIVE
⚠ AC POWER CORD PDG1015
AC120V 60Hz
To POWER TRANSFORMER (T1) and VOLTAGE SELECTOR (S1)
To FL UCOM assy CN120 (➔SCH- 11)
NC
NC
+5V STBY
+5V MAIN
D.G
AC MUTE
FL2
FL1
POWER RY
WAKE UP
FAN H/L
VH/VL
SP-A RY
SP-B RY
C.R RY
NECK
A MUTE
FAN TEMP
-VF
PROT
AMP O.L.

NOTE : Sections marked with ▓ are not used for VSX- D705S

●NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

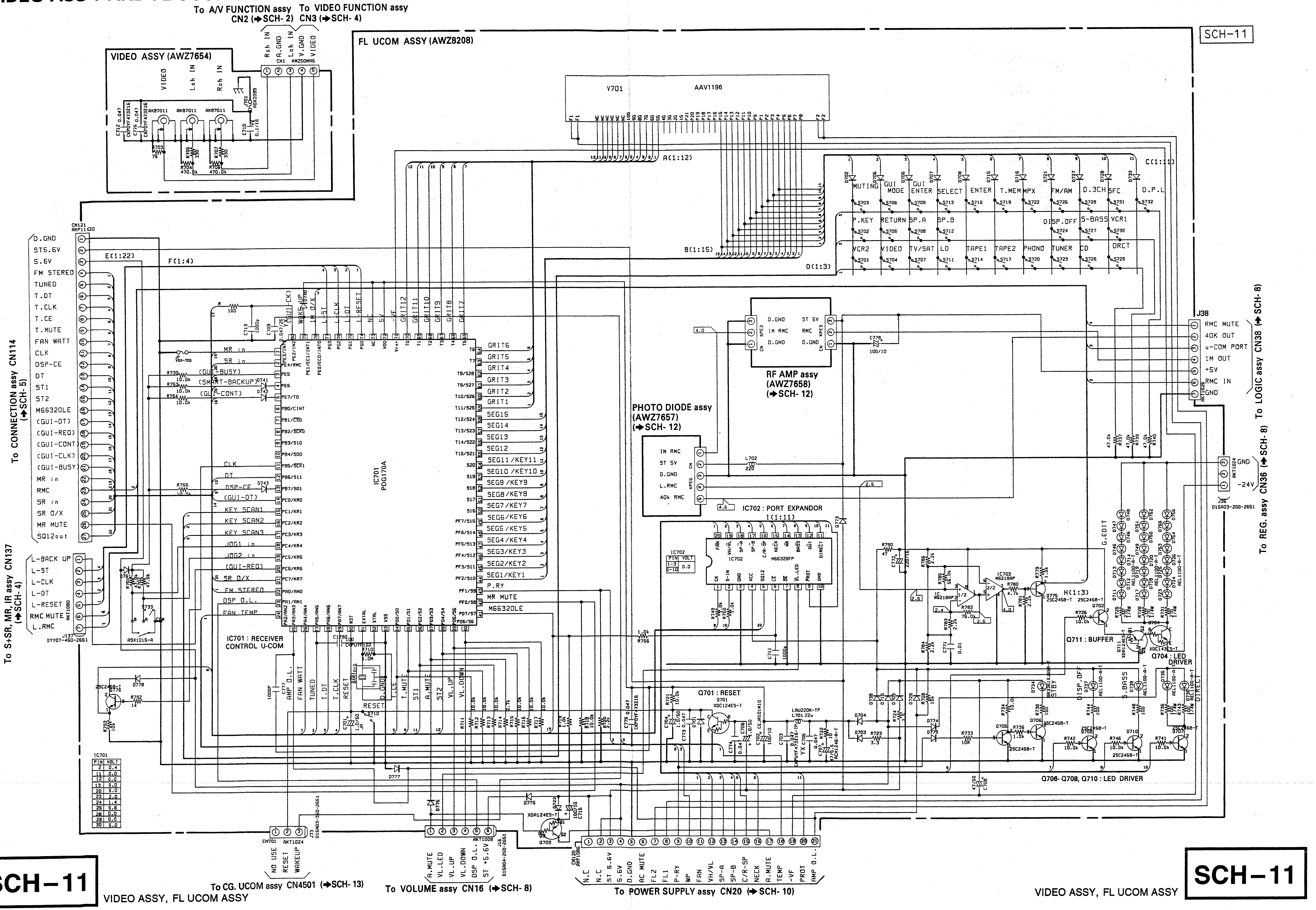

TRANS ASSY
RISK OF FIRE-REPLACE FUSE AS MARKED
EL-437V0
AWZ7622
FU3
FU4
J23
20
19
18
17
16
To POWER TRANSFORMER
POWER SUPPLY ASSY
AWZ 7619 7769
To POWER TRANSFORMER
14
10
11
13
12
PIONEER
EL-437V0
PRIM ASSY
SECONDARY
EL-437V0
SUB
SD FUSE
FU1
MAIN HOT
SD HOT
MAIN COM
TP1381
TP1382
TP1383
TP1384
TP1385
TP1386
SB 230V
SD 110V
COM
HOT
N
L
PRIMARY
RISK OF FIRE- REPLACE FUSE AS MARKED
AWZ
To POWER TRANSFORMER
4
1
To AC POWER CORD
LIVE
NEUTRAL
Q51
Q52
IC51
Q1316
Q1318
Q1320
Q1322
Q1311
Q1313
Q1323
Q1325
Q1314
Q1315
Q1317
To AMP ASSY 200W CN202
To FRONT SP. ASSY CN24
To AMP ASSY C, S FAN__CN CN301
To FL UCOM ASSY CN120
To R. C SP. ASSY J30
To REG. ASSY CN19
To FRONT SP. ASSY J125

- This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

VSX-D705S

3.11 VIDEO ASSY AND FL UCOM ASSY


To A/V FUNCTION assy CN2 (➔SCH- 2)
To VIDEO FUNCTION assy CN3 (➔SCH- 4)
SCH-11
VIDEO ASSY (AWZ7654)
FL UCOM ASSY (AWZ8208)
VIDEO
Lch IN
Rch IN
Rch IN
A.GND
Lch IN
V.GND
VIDEO
CN1 KN250MRG
V701
AAV1196
AKB7011
R703 75
R705 330
R704 470.0k
R707 330
R706 470.0k
A(1:12)
B(1:15)
C(1:11)
D(1:3)
E(1:22)
F(1:4)
MUTING
GUI MODE
GUI ENTER
SELECT
ENTER
T.MEM
MPX
FM/AM
D.3CH
SFC
D.P.L
P.KEY
RETURN
SP.A
SP.B
DISP.OFF
S-BASS
VCR1
VCR2
VIDEO
TV/SAT
LD
TAPE1
TAPE2
PHONO
TUNER
CD
DRCT
CN121 AKP11
D.GND
STS.6V
S.6V
FM STEREO
TUNED
T.DT
T.CLK
T.CE
T.MUTE
FAN WATT
CLK
DSP-CE
DT
ST1
ST2
M66320LE
(GUI-DT)
(GUI-REQ)
(GUI-CONT)
(GUI-CLK)
(GUI-BUSY)
MR in
RMC
SR in
SR O/X
MR MUTE
SQ12out
To CONNECTION assy CN114 (➔SCH- 5)
L-BACK UP
L-ST
L-CLK
L-DT
L-RESET
RMC MUTE
L.RMC
J137 DYY07-460-2651
To S+SR, MR, IR assy CN137 (➔SCH- 4)
RSX1015-A
IC701 PDG170A
IC701 : RECEIVER CONTROL U-COM
GRIT1 – GRIT12
SEG1/KEY1 – SEG11/KEY11
SEG12
SEG13
SEG14
SEG15
P.RY
MR MUTE
M66320LE
KEY SCAN1
KEY SCAN2
KEY SCAN3
JOG1 in
JOG2 in
(GUI-REQ)
SR O/X
FM STEREO
DSP O.L.
FAN TEMP
(GUI-BUSY)
(SMART-BACKUP)
(GUI-CONT)
(GUI-DT)
DSP-CE
AMP O.L.
FAN WATT
TUNED
T.DT
T.CLK
RESET
ST1
ST2
A.MUTE
VL.UP
VL.DOWN
RF AMP assy (AWZ7658) (➔SCH- 12)
D.GND
IM RMC
ST 5V
RMC
PHOTO DIODE assy (AWZ7657) (➔SCH- 12)
IM RMC
ST 5V
D.GND
L.RMC
40k RMC
IC702 : PORT EXPANDOR
IC702 M66320FP
IC703 M5218AP
J38
RMC MUTE
40K OUT
u-COM PORT
IM OUT
+5V
RMC IN
GND
To LOGIC assy CN38 (➔SCH- 8)
GND
-24V
J36 D15R03-200-2651
To REG. assy CN36 (➔SCH- 8)
Q711 : BUFFER
Q704 : LED DRIVER
Q706- Q708, Q710 : LED DRIVER
Q701 : RESET
G.EDIT
STBY
DISP.OFF
S.BASS
DIRECT
2SC2458-T
XDA124ES-T
XDC124ES-T
LAU220K-TP
IC701
PIN VOLT
CN701 AKT1024
J73 D15R03-350-2651
NO USE
RESET
WAKEUP
To CG. UCOM assy CN4501 (➔SCH- 13)
A.MUTE
VL.LED
VL.UP
VL.DOWN
DSP O.L.
ST +5.6V
AKT1009
J16 D15R04-250-2651
To VOLUME assy CN16 (➔SCH- 8)
CN120 AKP1086
N.C
N.C
ST 5.6V
S.6V
D.GND
AC MUTE
FL2
FL1
P-RY
WP
FAN
VH/VL
SP-A
SP-B
C/R-SP
NECK
A.MUTE
TEMP
-VF
PROT
AMP O.L.
To POWER SUPPLY assy CN20 (➔SCH- 10)

IC701

PIN	VOLT
2	0.4
11	0.0
12	0.0
13	5.0
20	5.0
23	2.0
24	1.4
26	5.6
28	0.0
29	0.0
30	5.0

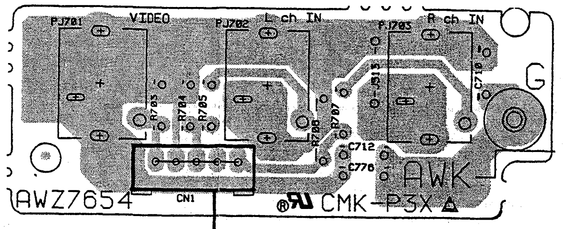
IC702

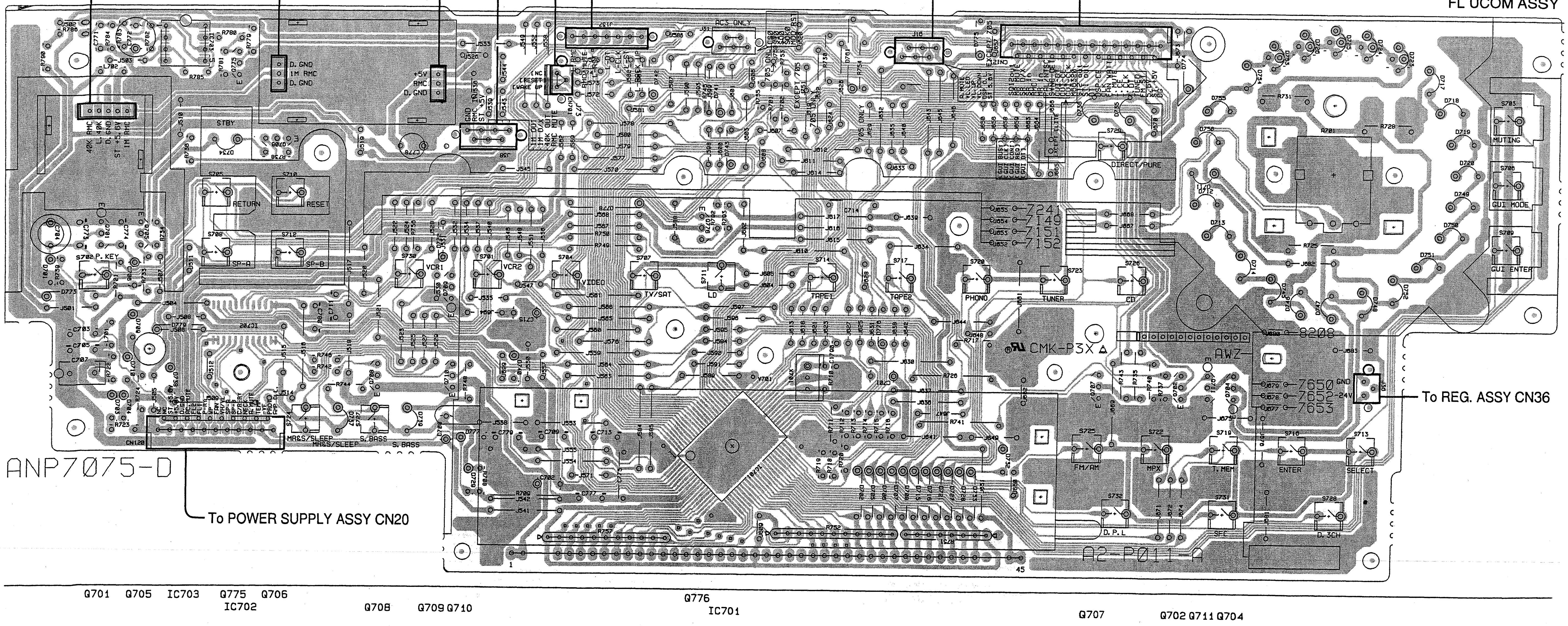
PIN	VOLT
1-10	0.0

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the mounted parts side.

VIDEO ASSY


PJ701
VIDEO
PJ702
L ch IN
PJ703
R ch IN
C712
C770
CN1
AWZ7654
CMK-P3X
AWK
To VIDEO FUNCTION ASSY CN3 and A/V FUNCTION ASSY CN2


To LOGIC ASSY CN38
To C. G UCOM ASSY CN4501
To RF AMP ASSY
To RF AMP ASSY
To S+SR, MR, IR ASSY CN137
To VOLUME ASSY CN16
To CONNECTION ASSY CN114
To PHOTO DIODE ASSY
FL UCOM ASSY
D. GND
1M RMC
D. GND
+5V
RMC
D. GND
STBY
RETURN
RESET
SP-A
SP-B
P. KEY
VCR1
VCR2
VIDEO
TV/SAT
LD
TAPE1
TAPE2
PHONO
TUNER
CD
DIRECT/PURE
MUTING
GUI MODE
GUI ENTER
MR&S/SLEEP
S. BASS
FM/AM
MPX
T. MEM
ENTER
SELECT
D.P.L
SFC
D. 3CH
CMK-P3X
AWZ
CN120
ANP7075-D
A2-P011-A
To POWER SUPPLY ASSY CN20
To REG. ASSY CN36
Q701
Q705
IC703
Q775
Q706
IC702
Q708
Q709
Q710
Q776
IC701
Q707
Q702
Q711
Q704

3.12 PHOTO DIODE ASSY AND RF AMP ASSY

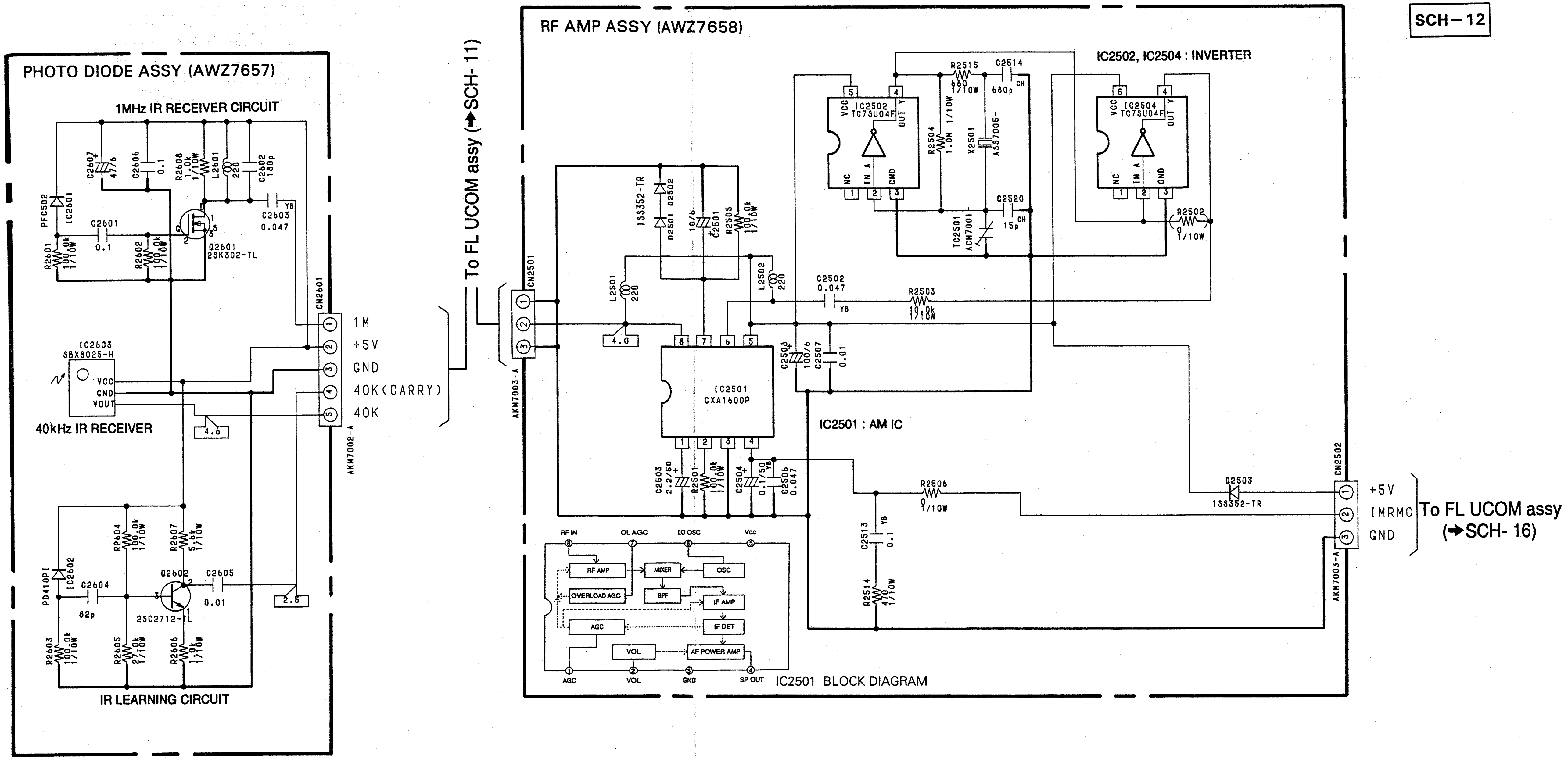
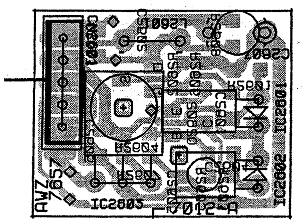


PHOTO DIODE ASSY (AWZ7657)
1MHz IR RECEIVER CIRCUIT
PFC502
IC2601
C2607 47/6
C2606 0.1
R2608 1.0k 1/10W
L2601 220
C2602 180p
C2603 0.047
YB
C2601 0.1
R2601 100.0k 1/10W
R2602 100.0k 1/10W
Q2601 2SK302-TL
IC2603 SBX8025-H
VCC
GND
VOUT
40kHz IR RECEIVER
4.6
CN2601
AKM7002-A
1M
+5V
GND
40K(CARRY)
40K
PD410PI
IC2602
C2604 82p
R2604 100.0k 1/10W
R2607 5.6k 1/10W
Q2602 2SC2712-TL
C2605 0.01
2.5
R2603 100.0k 1/10W
R2605 27.0k 1/10W
R2606 1.0k 1/10W
IR LEARNING CIRCUIT
To FL UCOM assy (→SCH-11)
RF AMP ASSY (AWZ7658)
CN2501
AKM7003-A
1SS352-TR
D2501 D2502
C2501 10/6
R2505 100.0k 1/10W
L2501 220
L2502 220
4.0
C2502 0.047
YB
R2503 10.0k 1/10W
C2508 100/6
C2507 0.01
IC2501 CXA1600P
IC2501 : AM IC
C2503 2.2/50
R2501 100.0k 1/10W
C2504 0.1/50
C2506 0.047
R2506 0 1/10W
C2513 0.1
R2514 470 1/10W
IC2502 TC7SU04F
VCC
OUT Y
NC
IN A
GND
R2515 680 1/10W
C2514 680p CH
R2504 1.0M 1/10W
X2501 ASS7005-
C2520 15p CH
TC2501 ACM7001
IC2502, IC2504 : INVERTER
IC2504 TC7SU04F
R2502 0 1/10W
D2503 1SS352-TR
CN2502
AKM7003-A
+5V
IMRMC
GND
To FL UCOM assy (→SCH-16)
RF IN
OL AGC
LO OSC
Vcc
RF AMP
MIXER
OSC
OVERLOAD AGC
BPF
IF AMP
AGC
IF DET
VOL
AF POWER AMP
AGC
VOL
GND
SP OUT
IC2501 BLOCK DIAGRAM

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

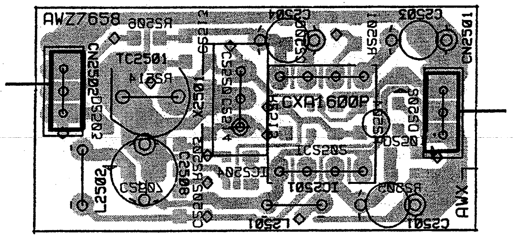
IC2601 IC2602 Q2602 IC2603

PHOTO DIODE ASSY


To FL UCOM ASSY
AWZ7657
IC2603

IC2502 IC2501 IC2504

RF AMP ASSY


To FL UCOM ASSY
AWZ7658
TC2501
X2501
CXA1600P
To FL UCOM ASSY
ANP7060-B

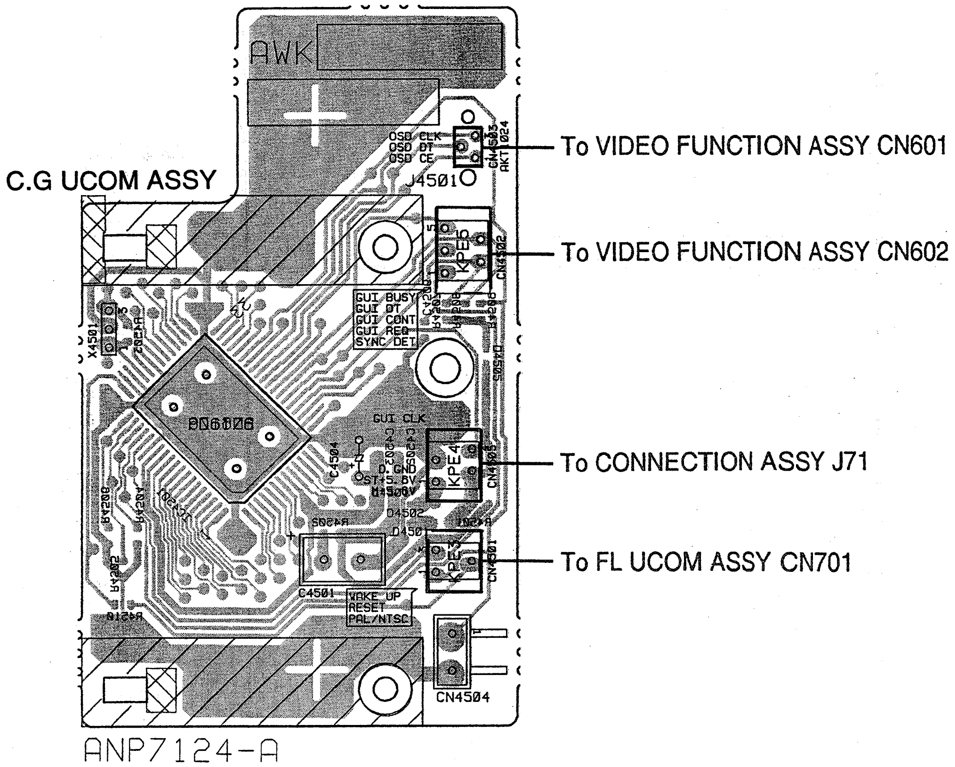
PCB-11

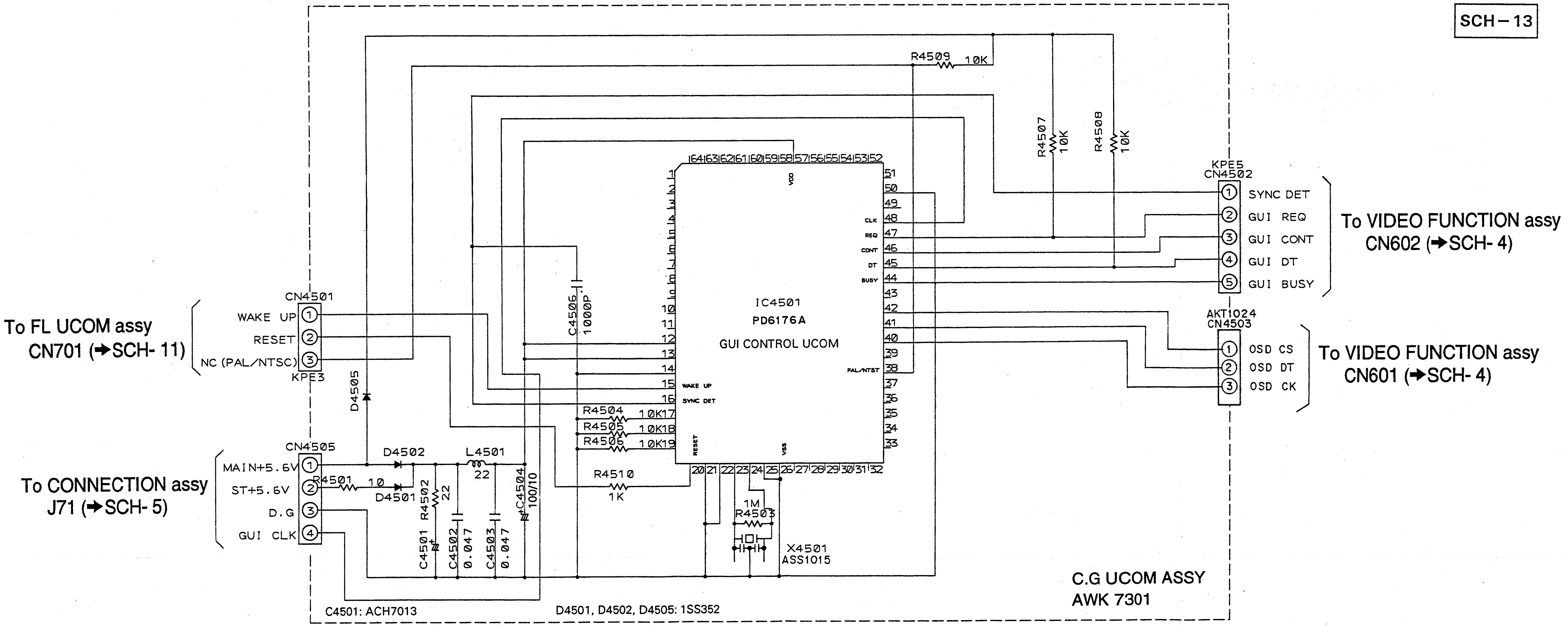
- This diagram is viewed from the mounted parts side.

3. 13 C.G UCOM ASSY

- This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.


C.G UCOM ASSY
AWK
J4501
To VIDEO FUNCTION ASSY CN601
To VIDEO FUNCTION ASSY CN602
To CONNECTION ASSY J71
To FL UCOM ASSY CN701
OSD CLK
OSD DT
OSD CE
GUI BUSY
GUI DT
GUI CONT
GUI REQ
SYNC/DET
GUI CLK
KPE5
KPE4
KPE3
CN4501
CN4502
CN4503
CN4505
CN4504
C4501
WAKE UP
RESET
PAL/NTSC
X4501
IC4501
ANP7124-A


R4509 10K
R4507 10K
R4508 10K
KPE5
CN4502
① SYNC DET
② GUI REQ
③ GUI CONT
④ GUI DT
⑤ GUI BUSY
To VIDEO FUNCTION assy CN602 (→SCH- 4)
AKT1024
CN4503
① OSD CS
② OSD DT
③ OSD CK
To VIDEO FUNCTION assy CN601 (→SCH- 4)
IC4501
PD6176A
GUI CONTROL UCOM
VDD
CLK
REQ
CONT
DT
BUSY
PAL/NTST
WAKE UP
SYNC DET
RESET
VSS
C4506 1000P
CN4501
WAKE UP ①
RESET ②
NC (PAL/NTSC) ③
KPE3
To FL UCOM assy CN701 (→SCH- 11)
D4505
R4504 10K
R4505 10K
R4506 10K
R4510 1K
CN4505
MAIN+5.6V ①
ST+5.6V ②
D.G ③
GUI CLK ④
To CONNECTION assy J71 (→SCH- 5)
D4502
R4501 10
D4501
L4501 22
R4502 22
C4504 100/10
C4501
C4502 0.047
C4503 0.047
1M R4503
X4501 ASS1015
C.G UCOM ASSY
AWK 7301
C4501: ACH7013
D4501, D4502, D4505: 1SS352

C4501	605	ACH7013-

4. PCB PARTS LIST

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

$560\Omega \rightarrow 56 \times 10^1 = 561$ .... *RD1/4PU* $\boxed{5}\boxed{6}\boxed{1}$ *J*

$47k\Omega \rightarrow 47 \times 10^3 = 473$ .... *RD1/4PU* $\boxed{4}\boxed{7}\boxed{3}$ *J*

$0.5\Omega \rightarrow 0R5$ .... *RN2H* $\boxed{0}\boxed{R}\boxed{5}$ *K*

$1\Omega \rightarrow 1R0$ .... *RS1P* $\boxed{1}\boxed{R}\boxed{0}$ *K*

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

$5.62k\Omega \rightarrow 562 \times 10^1 = 5621$ .... *RN1/4PC* $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ *F*

LIST OF PCB ASSEMBLIES

Mark	No.	Description	Parts No.
		TUNER ASSY	AWE1140
		POWER AMP MODULE 200W	AWK7175
		├─AMP ASSY C, S FAN_CN	AWZ7698
		└─AMP ASSY 200W	AWZ7776
		BIG ASSY	AWK7239
		├─REG. ASSY	AWZ7617
		├─PRIM ASSY	AWZ7620
NSP		├─TRANS ASSY	AWZ7622
NSP		├─FRONT SP. ASSY	AWZ7623
NSP		├─R.C SP. ASSY	AWZ7626
		├─VOLUME ASSY	AWZ8199
		├─POWER SUPPLY ASSY	AWZ8201
		└─CONNECTION ASSY	AWZ8203
		SMALL ASSY	AWK7240
		├─AUDIO FUNCTION ASSY	AWZ7634
		├─A/V FUNCTION ASSY	AWZ7636
		├─TONE ASSY	AWZ7642
		├─VIDEO FUNCTION ASSY	AWZ8205
		└─S+SR, MR, IR ASSY	AWZ8345
		FRONT ASSY	AWK7241
		├─IR RECEIVER ASSY	AWX7012
		│ ├─PHOTO DIODE ASSY	AWZ7657
		│ └─RF AMP ASSY	AWZ7658
		├─LOGIC ASSY	AWZ7651
NSP		├─VIDEO ASSY	AWZ7654
		└─FL UCOM ASSY	AWZ8208
		C.G UCOM ASSY	AWK7301
		DOL. PRO. MOD. 1021	AXQ7042

TUNER ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC451		AN7470P
	IC431		LA1265S
	IC471		LM7001
	Q454		2SA933S
	Q452, Q453		2SC1740S
	Q472		2SC1740SLN
	Q451		2SC2603
	Q403, Q421		2SC2668
	Q402		2SC2786
	Q405		2SK161
	Q401		2SK241
	Q471		2SK246
	Q473, Q474		RN2201
	D431–D435		1SS252
	D401–D403		1SV147

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L401		ATC1001
	L402		ATC1002
	L405		ATC1003
	L403		ATC1004
	L404		ATC1005
	T402		ATE–063
	L431		ATE–079
	F421		ATF–107
	F422		ATF–119
	F431		ATF–208
	L406, L407		LAU2R2M

CAPACITORS

Mark	No.	Description	Parts No.
	C454 (470pF/50V)		ACE1039
	C466		CCCSL121J50
	C417		CCDCH010C50
	C406		CCDCH020C50
	C415		CCDCH080D50
	C413, C481, C482		CCDCH150J50
	C414		CCDCH330J50
	C401, C404, C405		CCDRH330J50
	C402		CCDRH390J50
	C416		CCDTH180J50
	C479		CCPUSL220J50
	C445		CCPUSL470J50
	C452		CEANP4R7M35
	C442		CEAS0R1M50
	C420, C437, C475		CEAS100M50
	C451		CEAS101M16
	C456		CEAS1R5M50
	C438		CEAS2R2M50
	C443, C455		CEAS3R3M50
	C458, C463, C464, C484		CEAS470M16
	C433, C461, C462		CEAS4R7M50
	C457		CEASR22M50
	C478		CFTXA224J50
	C477		CKCYF103Z50
	C439, C440		CKCYF223Z50
	C435		CKCYF472Z50
	C453		CKCYF473Z50
	C436		CKCYX683M25
	C400		CKDYF102Z50
	C409, C483		CKPUYB101K50
	C444		CKPUYB331K50
	C441, C472		CKPUYF223Z25
	C403, C410–C412, C418, C419		CKPUYY103N16
	C421, C422, C465, C471, C473		CKPUYY103N16
	C476, C480, C485		CKPUYY103N16
	C459, C460		CQMA102J50
	C468, C469		CQMA182J50
	C446, C447		CQMA561K50

RESISTORS

Mark	No.	Description	Parts No.
	VR451 (4.7kΩ)		ACP1042
	VR431 (10kΩ)		ACP1043
	VR432		VRTS6VS153
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		ANTENNA TERMINAL 4–P	AKA1014
	X471	CRYSTAL RESONATOR	ASS1005
	X431	CERAMIC FILTER	ATF–125
		AM RF TUNING BLOCK	AXX1011
	CN401	12P SOCKET	KP200IA12L

AMP ASSY C, S FAN_CN

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC301		UPC4570C
	Q303–Q306		2SA1145
	Q381, Q382		2SC2240
	Q301, Q302, Q307, Q308		2SC2705
	D301–D308, D381–D386		1SS252
	D309–D312		MTZJ3.3
⚠	TH1		150–203–73002

CAPACITORS

Mark	No.	Description	Parts No.
⚠	C385 (0.01μF/150V)		ACG1005
	C307–C310		CCCSL151K500
	C383, C384		CEAS101M25
	C305, C306		CEAS101M50
	C301, C302, C311, C312		CEAS2R2M50
	C381, C382		CEAS2R2M50
	C317–C320		CFTXA104J50
	C303, C304		CKCYB471K50

RESISTORS

Mark	No.	Description	Parts No.
⚠	R369, R370 (0.33Ω, 5W)		ACN–139
	R333, R334		RD1/2PM392J
⚠	R395, R396		RD1/4PMF101J
⚠	R355–R358		RD1/4PMF151J
⚠	R381–R384		RD1/4PMF222J
⚠	R313–R316		RD1/4PMF270J
⚠	R321–R324		RD1/4PMF511J
⚠	R329–R332		RD1/4PMF680J
⚠	R311, R312		RD1/4PMF821J
⚠	R351–R354		RFA1/4PS470J
⚠	R347–R350, R363–R366		RFA1/4PS4R7J
⚠	R371, R372		RS2LMF100J
	R397		RS2LMF104J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		CABLE HOLDER (8P)	AKT1081
	CN301	7P JUMPER CONNECTOR	KPC7
	CN303	3P JUMPER CONNECTOR	KPE3

AMP ASSY 200W

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC201		UPC4570C
	Q203–Q206, Q213, Q214		2SA1145
	Q281, Q282		2SC2240
	Q201, Q202, Q207, Q208		2SC2705
	Q211, Q212		2SC2705
	D201–D208, D213, D214		1SS252
	D219, D220, D281–D286		1SS252
	D215–D218		MTZJ22D
	D209–D212		MTZJ3.3

CAPACITORS

Mark	No.	Description	Parts No.
	C285 (0.01μF/150V)		ACG1005
	C213–C216		CCCSL151K500
	C207–C210		CCCSL560K500
	C283, C284		CEAS101M25
	C205, C206		CEAS101M50
	C201, C202, C211, C212		CEAS2R2M50
	C281, C282		CEAS2R2M50
	C217–C220		CFTXA104J50
	C203, C204		CKCYB471K50

RESISTORS

Mark	No.	Description	Parts No.
	VR201, VR202		VRTS6HS102
	R267–R270 (0.33Ω, 5W)		ACN7001
	R233, R234		RD1/2PM562J
	R295, R296		RD1/4PMF101J
	R255–R258		RD1/4PMF151J
	R213–R216		RD1/4PMF270J
	R243–R246		RD1/4PMF271J
	R251–R254		RD1/4PMF470J
	R221–R224		RD1/4PMF561J
	R229–R232		RD1/4PMF680J
	R211, R212		RD1/4PMF821J
	R281–R288		RD1/4PMFL222J
	R239–R242		RF1/4PS101J
	R247–R250, R259–R266		RF1/4PS4R7J
	R235, R236		RN1/4PC3001F
	R237, R238		RN1/4PC8200F
	R271, R272		RS2LMF100J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		CABLE HOLDER (8P)	AKT1081
	CN204, CN205	4P PLUG	KM200IA4
	CN203	4P JUMPER CONNECTOR	KPE4
	CN201	5P JUMPER CONNECTOR	KPE5

REG. ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1251		NJM78M12FA
	IC1252		NJM79M12FA
	Q1259		2SC2458
	Q1251, Q1252, Q1260		2SC4793
	Q1256		XDA124ES

Mark	No.	Description	Parts No.
	Q1257		XDC124ES
	D1263, D1264		1SS252
	D1257, D1266		RD11ESB2
	D1265		RD12ESB2
	D1262		RD13ESB2
	D1258, D1261		RD13ESB3
	D1259		RD6.8ESB1
	D1251–D1256		S5688G

CAPACITORS

Mark	No.	Description	Parts No.
	C1251 (0.01 μF/150V)		ACG1005
	C1259, C1260, C1262, C1265		CEAS101M25
	C1261		CEAS102M16
	C1253, C1254		CEAS102M35
	C1252		CEAS222M35
	C1264		CEAS331M10
	C1255		CEAS470M25
	C1256–C1258, C1263		CKCYF103Z50

RESISTORS

Mark	No.	Description	Parts No.
	R1256		RD1/4PMF122J
	R1259		RD1/4PMF562J
	R1251		RFA1/4PS470J
	R1286		RS1LMF220J
	R1270		RS1LMF680J
	R1253		RS1PMF220J
	R1257, R1258		RS2LMF101J
	R1254, R1255, R1280		RS2LMF180J
	R1261		RS2LMF820J
	R1252		RT5PD180K
	Other Resistors		RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		SCREW	ABA–298
		HEAT SINK	ANH–309
	CN15	7P JUMPER CONNECTOR	KPC7
	CN36	3P JUMPER CONNECTOR	KPE3

PRIM ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC51		NJM78M56FA
	Q52		2SC4793
	Q51		XDC143ES
	D51		HSS104–02
	D54		HZS6A1L
	D55		RD13ESB1
	D53		S1WB20
	D52		S5688G

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L51		ATF1006

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	RY51		ASR1036

CAPACITORS

Mark	No.	Description	Parts No.
	C51, C52, C56 (0.01 μF/400V)		ACG1054
	C53		CEAS102M25
	C55		CEAS470M25
	C54		CKCYB103K50

RESISTORS

Mark	No.	Description	Parts No.
	R52 (2.2MΩ, 1/2W)		ACN–208
	R53		RD1/4PMF332J
	R51		RD1/4PMF4R7J
	Other Resistors		RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		AC OUTLET 3P	AKP1053
	H51, H52	FUSE CLIP	AKR1003
	KN51	GROUND PLATE	ANK–142
	T51	POWER TRANSFORMER	ATT7006
	CN22	5P JUMPER CONNECTOR	KPC5

TRANS ASSY

RESISTORS

Mark	No.	Description	Parts No.
	R1341, R1342		RFA1/4PL4R7J

OTHERS

Mark	No.	Description	Parts No.
	H1341–H1344		AKR1003

FRONT SP. ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q1282, Q1283		XDC143ES
	D1282, D1283		HSS104–02

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	RY1282, RY1283		ASR1035

RESISTORS

Mark	No.	Description	Parts No.
	R1282, R1283		RD1/4PMF100J
	Other Resistors		RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN8004	SPEAKER TERMINAL 8–P	AKE1048
		CABLE HOLDER (4P)	AKT1077
	CN26	CONNECTOR (4P)	KPC4
	CN24	CONNECTOR (11P)	KPE11
	CN27	CONNECTOR (6P)	KPE6

R.C SP. ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q1291		2SC2878
	Q1271		XDC143ES
	D1271		HSS104–02

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	RY1271		ASR1035

CAPACITORS

Mark	No.	Description	Parts No.
	C1291, C1292		CEANPR47M50

RESISTORS

Mark	No.	Description	Parts No.
	R1272		RD1/4PMF100J
	Other Resistors		RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN8007	2P PIN JACK	AKB7008
	CN8016	SPEAKER TERMINAL 2–P	AKE1041
		SPEAKER TERMINAL 4–P	AKE1055
		CABLE HOLDER (3P)	AKT1076
		CABLE HOLDER (4P)	AKT1077

VOLUME ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1355		TA8409S
	IC1351, IC1353		UPC4570C
	IC1352		XRA4558–P
	Q1351–Q1354		2SC2878
	Q1355		XDA143ES

Mark	No.	Description	Parts No.
	Q1357		XDC124ES
	D1352, D1353		HSS104–02
	D1391		RD4.3ESB
	D1355		RD5.1ESB2
	CAPACITORS		
	C1391		CEANP101M10
	C1361, C1362, C1381, C1382		CEAS100M50
	C1392		CEAS101M25
	C1351, C1352, C1359, C1360		CEAS4R7M50
	C1371, C1372, C1375, C1379, C1380		CEAS4R7M50
	C1357		CEASR47M50
	C1355		CKCYX104M16
	C1376		CKPUYF473Z16
	RESISTORS		
	VR1351 (100kΩ×4)		ACX1074
	R1399		RD1/2PM470J
	R1369, R1370, R1389, R1390		RD1/4PM221J
	R1397		RD1/4PM621J
	Other Resistors		RD1/8PM□□□J
	OTHERS		
		CABLE HOLDER	AKT1012
	CN157	20P SOCKET	KP200IB20L
	CN16	6P JUMPER CONNECTOR	KPE6

POWER SUPPLY ASSY

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	Q1321, Q1322, Q1327		2SA1048
	Q1316		2SA1515
	Q1314, Q1315, Q1318, Q1320		2SC2458
	Q1312, Q1313, Q1323, Q1324		2SC2878
	Q1317, Q1325		XDA143ES
	Q1311		XDC143ES
	D1301, D1302		D5SB20F
	D1311, D1316, D1318, D1319		HSS104–02
	D1325–D1327		HSS104–02
	D1317		RD2.7ESB1
	D1321–D1324		RD20ESB
	D1315		RD6.2ESB
	SWITCHES AND RELAYS		
	RY1311, RY1312		ASR1027
	RY1313		ASR1035
	CAPACITORS		
	C1301, C1302 (0.01µF/150V)		ACG1005
	C1303 (12000µF/80V)		ACH1263
	C1304 (12000µF/80V)		ACH1264
	C1311		CEAS101M10
	C1317		CEAS101M35
	C1315		CEAS221M16
	C1312		CEAS470M25
	C1318		CKCYF103Z50
	RESISTORS		
	R1322		RD1/4PMF100J
	R1316		RD1/4PMF2R2J
	R1318		RD1/4PMF682J
	R1330		RFA1/4PS4R7J
	R1312		RS1LMF332J
	R1311		RS1PMF470J
	R1323, R1324		RS2LMF331J
	Other Resistors		RD1/8PM□□□J

Mark	No.	Description	Parts No.
	OTHERS		
	CN20	21P SOCKET	AKP1084
		CABLE HOLDER	AKT1007
		CABLE HOLDER (7P)	AKT1080
		CABLE HOLDER (12P)	AKT1085
	KN1361	GROUND PLATE	ANK–142
	CN30	3P JUMPER CONNECTOR	KPC3
	CN125	4P JUMPER CONNECTOR	KPC4
	CN23	5P JUMPER CONNECTOR	KPC5
	JA8051	HEADPHONE JACK	RKN1002

CONNECTION ASSY

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	Q622		2SA1515
	Q623		2SC2458
	D624		1SS252
	D623		RD5.1ESB2
	CAPACITORS		
	C623, C624		CCCCH101J50
	C638		CCCSL101J50
	C639		CEAS101M25
	C640		CEAS470M25
	RESISTORS		
	R639		RD1/2PM181J
	R638		RD1/4PMF150J
	Other Resistors		RD1/8PM□□□J
	OTHERS		
	CN114	27P SOCKET	AKP1099
	KN622		ANK–142
	CN53		KM200IB10
	CN51, CN54	12P PLUG	KM200IB12
	CN52	13P PLUG	KM200IB13
	CN56	8P PLUG	KM200IB8
	CN55, CN59	9P PLUG	KM200IB9

AUDIO FUNCTION ASSY

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC404		M5220P
	IC401		TC9164AN
	IC403		XRA4558–P
	CAPACITORS		
	C1402, C1403		CCSQCH101J50
	C447		CCSQCH102J50
	C419, C420		CCSQCH221J50
	C417, C418		CCSQCH681J50
	C423, C424		CCSQSL101J50
	C415, C416		CEAS100M50
	C421, C422, C431, C432		CEAS101M25
	C433, C434, C439, C440		CEAS2R2M50
	C1401, C429, C430, C435, C436		CKSQYF103Z50
	C441, C444		CKSQYF103Z50
	C427, C428		CQMA242J50
	C425, C426		CQMA822J50
	RESISTORS		
	All Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK (6P)	AKB7012
		PIN JACK (6P)	AKB7013
		CABLE HOLDER (11P)	AKT1084
	CN152	13P SOCKET	KP200IB13L

A/V FUNCTION ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC451		TC9163AN

CAPACITORS

Mark	No.	Description	Parts No.
	C494, C495		CCSQCH101J50
	C487		CCSQCH102J50
	C481, C482		CEAS470M25
	C475, C476, C483, C484, C491		CKSQYF103Z50

RESISTORS

Mark	No.	Description	Parts No.
	All Resistors		RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		PIJN JACK (4P)	AKB7014
		PIN JACK (4P)	AKB7015
	CN2	3P PLUG	KM250MA3L
	CN153	10P SOCKET	KP200IB10L
	CN11	11P JUMPER CONNECTOR	KPD11L

TONE ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC554		TC9162AN
	IC551		XRA4558N-P
	Q551–Q554		2SC2458

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L1601		LAU2R2J

CAPACITORS

Mark	No.	Description	Parts No.
	C569, C570		CCSQCH101J50
	C603		CCSQCH471J50
	C553, C554		CEAS010M50
	C565–C568		CEAS100M50
	C551, C552		CEAS4R7M50
	C557, C558		CEASR47M50
	C555, C556		CFTXA154J50
	C559, C560		CFTXA473J50
	C602		CKCYF103Z50
	C563, C564		CKPUYB151K50
	C601		CKSQYF103Z50
	C561, C562		CQMA153J50

RESISTORS

Mark	No.	Description	Parts No.
	VR553 (10kΩ-B×2)		ACS1029
	VR551, VR552 (30kΩ-B5×2)		ACS1115
	R579, R580		RD1/4PM221J
	R590, R594–R597, R601		RS1/10S000J
	R605, R606, R611, R614–R616		RS1/10S000J
	R602–R604		RS1/10S102J
	R555, R556		RS1/10S104J
	R577		RS1/10S272J
	R560		RS1/10S512J
	Other Resistors		RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		CABLE HOLDER (7P)	AKT1080
	KN551	GROUND PLATE	ANK-142
	CN58	15P PLUG	KM200IB15
	CN57	20P PLUG	KM200IB20
	CN13	14P JUMPER CONNECTOR	KPE14

VIDEO FUNCTION ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC501		LA7951
	IC504		M66320FP
	IC505		MM1067XD
	IC502		NJM2233BLA
	IC508		NJM2243L
	IC506		PD6178A
	IC510		UPC78L05J
	Q504–Q506		2SA1115
	Q507		2SA1515
	Q501		2SC2458
	D501–D503		HSS104-02

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L504		LAU220J
	L501, L502, L506–L508		LAU680J

CAPACITORS

Mark	No.	Description	Parts No.
	TC501		ACM-023
	C1507, C1508		CCSQCH050C50
	C1521		CCSQCH101J50
	C537, C541		CCSQCH150J50
	C529		CCSQCH221J50
	C542		CCSQCH330J50
	C501		CCSQCH331J50
	C1530		CCSQCH470J50
	C519, C528		CCSQCH561J50
	C525, C526		CEAS010M50
	C1514, C520, C522		CEAS100M50
	C534		CEAS101M10
	C513		CEAS101M25
	C1502–C1504, C502–C506		CEAS470M25
	C516–C518, C532, C540, C544		CEAS470M25
	C548, C550		CEAS470M25
	C1510–C1512		CEAS471M10
	C530		CEASR47M50
	C1515, C1516, C1519, C531		CKSQYB102K50
	C1517, C1518		CKSQYB104K25
	C527		CKSQYB332K50
	C523		CKSQYB473K50
	C1505, C1506, C514, C515, C521		CKSQYF103Z50
	C533, C536, C539, C546		CKSQYF103Z50

RESISTORS

Mark	No.	Description	Parts No.
	R540, R541		RD1/2PM331J
	R532		RD1/4PM680J
	Other Resistors		RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK (2P)	AKB7016
		RCA PIN JACK (2P)	AKB7017
		RCA PIN JACK (3P)	AKB7018
		CABLE HOLDER	AKT1012
	CN3	3P PLUG	KM250MA3L

Mark	No.	Description	Parts No.
	CN154	12P SOCKET	KP200IB12L
	CN155	9P SOCKET	KP200IB9L
	CN601	3P JUMPER CONNECTOR	KPE3
	X502 (14.31818MHz)		ASS1056
	X501 (503kHz)		ASS1112
	S+SR, MR, IR ASSY		
	SEMICONDUCTORS		
	IC658		LH5268AN1TLL
	IC657		PD5368A
	IC656		TC74HC123AF
	Q657		2SA1048
	Q655, Q662, Q663		2SC2458
	Q665		2SC3732
	Q664		XDC124ES
	D666		1SS252
	D651–D653, D657, D658		HSS104–02
	D660–D665		HSS104–02
	D659		RD3.0ESB1
	COILS AND FILTERS		
	L659		LAU220K
	CAPACITORS		
	C692		ACH1246
	C690		CEAS101M10
	C693		CEAS470M25
	C688, C689, C696, C697		CKSQYB102K50
	C698		CEAS1R5M50
	C691		CKSQYF103Z50
	C694, C695		CKSQYF473Z50
	RESISTORS		
	All Resistors		RS1/10S□□□J
	OTHERS		
	CN1001	JACK	AKN–209
	CN1002	JACK	AKN1028
	X651	CERAMIC RESONATOR	ASS1025
		JACK	BKN1005
	CN156	8P SOCKET	KP200IB8L
	CN159	9P SOCKET	KP200IB9L
	PHOTO DIODE ASSY		
	SEMICONDUCTORS		
	IC2602		PD410PI
	IC2601		PFC502
	IC2603		SBX8025–H
	Q2602		2SC2712
	Q2601		2SK302
	COILS AND FILTERS		
	L2601		LAU221K
	CAPACITORS		
	C2602		CCSQCH181J50
	C2604		CCSQCH820J50
	C2607		CEAL470M6R3
	C2605		CKSQYB103K50
	C2603		CKSQYB473K50
	C2601, C2606		CKSQYF104Z25

Mark	No.	Description	Parts No.
	RESISTORS		
	All Resistors		RS1/10S□□□J
	OTHERS		
		LED HOLDER	AMR7040
	RF AMP ASSY		
	SEMICONDUCTORS		
	IC2501		CXA1600P
	IC2502, IC2504		TC7SU04F
	D2501–D2503		1SS352
	COILS AND FILTERS		
	L2501, L2502		LAU221K
	CAPACITORS		
	TC2501		ACM7001
	C2520		CCSQCH150J50
	C2514		CCSQCH681J50
	C2501		CEAL100M6R3
	C2508		CEAL101M6R3
	C2503		CEAL2R2M35
	C2504		CEALR10M50
	C2507		CKSQYB103K50
	C2513		CKSQYB104K25
	C2502, C2506		CKSQYB473K50
	RESISTORS		
	All Resistors		RS1/10S□□□J
	OTHERS		
	X2501	CERAMIC RESONATOR	ASS7005
	LOGIC ASSY		
	SEMICONDUCTORS		
	IC1700		M5223P
	IC1701		TC74HC02AP
	Q1700		2SA1048
	Q1701, Q1703		2SC2458
	Q1702, Q1705		XDA124ES
	Q1704		XDC124ES
	D1700–D1705		HSS104–02
	CAPACITORS		
	C1701		CEJA100M50
	C1700		CEJA4R7M50
	C1703		CFTXA103J50
	C1702, C1704		CKCYF103Z50
	RESISTORS		
	All Resistors		RD1/8PM□□□J
	OTHERS		
	CN38	7P JUMPER CONNECTOR	KPE7
	VIDEO ASSY		
	CAPACITORS		
	C710		CKCYX104M16
	C712, C776		CKPUYF473Z16
	RESISTORS		
	All Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK (1P)	AKB7011
	CN1	5P PLUG	KM250MA5

FL UCOM ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC703		M5218AP
	IC702		M66320FP
	IC701		PDG170A
	Q702, Q705–Q708, Q710		2SC2458
	Q775, Q776		2SC2458
	Q709, Q711		XDA124ES
	Q701		XDC124ES
	Q704		XDC143ES
	D711–D714, D717–D720		AEL1100
	D723–D726, D735–D737, D739		AEL1100
	D745–D756		AEL1100
	D734		BR3361XJ65A
	D701–D710, D715, D716		HSS104–02
	D721, D722, D727–D729, D733		HSS104–02
	D738, D740–D743, D761		HSS104–02
	D773–D779		HSS104–02

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L701		LAU220J
	L702		LAU221J

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S701–S714, S716, S717		ASG1034
	S719, S720, S722–S732		ASG1034
	S733		ASX1015

CAPACITORS

Mark	No.	Description	Parts No.
	C707		ACH1246
	C704, C706		CEAS010M50
	C715, C778		CEAS101M10
	C772		CEAS221M16
	C708		CEAS470M50
	C701		CEJA010M50
	C702		CEJA101M10
	C711, C713, C777		CKCYB102K50
	C705, C709, C773, C774		CKCYX473M25
	C1790		CKPUYB101K50
	C771		CKPUYF103Z25
	C703, C775		CKPUYF473Z16

RESISTORS

Mark	No.	Description	Parts No.
	R725, R728, R731		RD1/4PM271J
	Other Resistors		RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	V701	FL TUBE	AAV1196
	CN120	21P SOCKET	AKP1086
	CN121	27P SOCKET	AKP1100
		CABLE HOLDER (8P)	AKT1080
		SHIELD CASE A	ANK7009
		SHIELD CASE B	ANK7010
	X701 (8.00MHz)		ASS1015

C.G UCOM ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC4501		PD6176A
	D4501, D4502, D4505		1SS352

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L4501		LCTA220J3225

CAPACITORS

Mark	No.	Description	Parts No.
	C4501		ACH7013
	C4504		CEAS101M10
	C4506		CKSQYB102K50
	C4502, C4503		CKSQYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	All Resistors		RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN4501	3P JUMPER CONNECTOR	KPE3
	CN4505	4P JUMPER CONNECTOR	KPE4
	CN4502	5P JUMPER CONNECTOR	KPE5
	X4501 (8.00MHz)		ASS1015

DOL. PRO. MOD. 1021

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1908		LA2785
	IC1901–IC1906		NJM4558MD
	IC1907		PMC001B
	Q1904		2SC2712
	Q1901		2SD468
	Q1902, Q1903		2SK208
	D1902, D1904–D1906, D1908, D1909		1SS226
	D1903		1SS352
	D1901		RD9.1M–B3

COILS AND FILTERS

Mark	No.	Description	Parts No.
	F1901		ATF1102

CAPACITORS

Mark	No.	Description	Parts No.
	C1951–C1954 (0.082µF/25V)		ACG1050
	C2017, C2018		CCSQCH100D50
	C1901–C1903		CCSQCH101J50
	C2000		CCSQCH181J50
	C2013, C2014		CCSQCH300J50
	C1977, C1994		CEANL3R3M50
	C1973, C1975, C1990, C1992		CEANL4R7M50
	C2006		CEANP330M25
	C1965–C1967		CEAS100M50
	C1904, C1905		CEAS101M25
	C1948		CEAS221M10
	C1916, C1947, C1981, C1986		CEAS221M16
	C2007		CEAS330M35
	C1915, C1946, C1960, C1961, C1969		CEAS470M25
	C2012		CEJA010M50
	C1908, C1911, C1914, C1920, C1921		CEJA100M16
	C1926, C1927, C1930, C1931, C1942		CEJA100M16
	C1982–C1985, C1996, C1997, C1999		CEJA100M16
	C2003, C2005		CEJA100M16
	C1906, C1909, C1912, C1936, C1937		CEJA2R2M50
	C1943		CEJA2R2M50
	C1976, C1993		CEJAR15M50
	C1940		CEJAR22M50
	C1972, C1974, C1989, C1991		CEJAR47M50
	C1941		CEJAR68M50

Mark	No.	Description	Parts No.
	C1932, C1933, C1938		CFTYA103J50
	C1970, C1971, C1987, C1988		CFTYA104J50
	C1978, C1995		CFTYA154J50
	C1918, C1919		CFTYA184J50
	C1939		CFTYA333J50
	C1968		CFTYA474J50
	C1959		CFTYA563J50
	C1950, C1955–C1958, C1998		CFTYA823J50
	C1917, C1962, C1963, C2010, C2011		CKSQYB104K25
	C1922, C1923		CQMA102J50
	C2004		CQMA222J50
	C1979		CQMA223J50
	C1944, C1945, C1949		CQMA332J50
	C1928, C1929		CQMA362J50
	C1980		CQMA473J50
	C1964		CQMA681J50
	C1924, C1925		CQMA682J50
	C2001		CQMA822J50
	C2002		CQPA221J100
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	CN2001 15P SOCKET		KP200IB15L
	X1901 (7.16MHz)		ASS1109

5. DISASSEMBLY

5.1 HOW TO REMOVE THE PCB ASSY

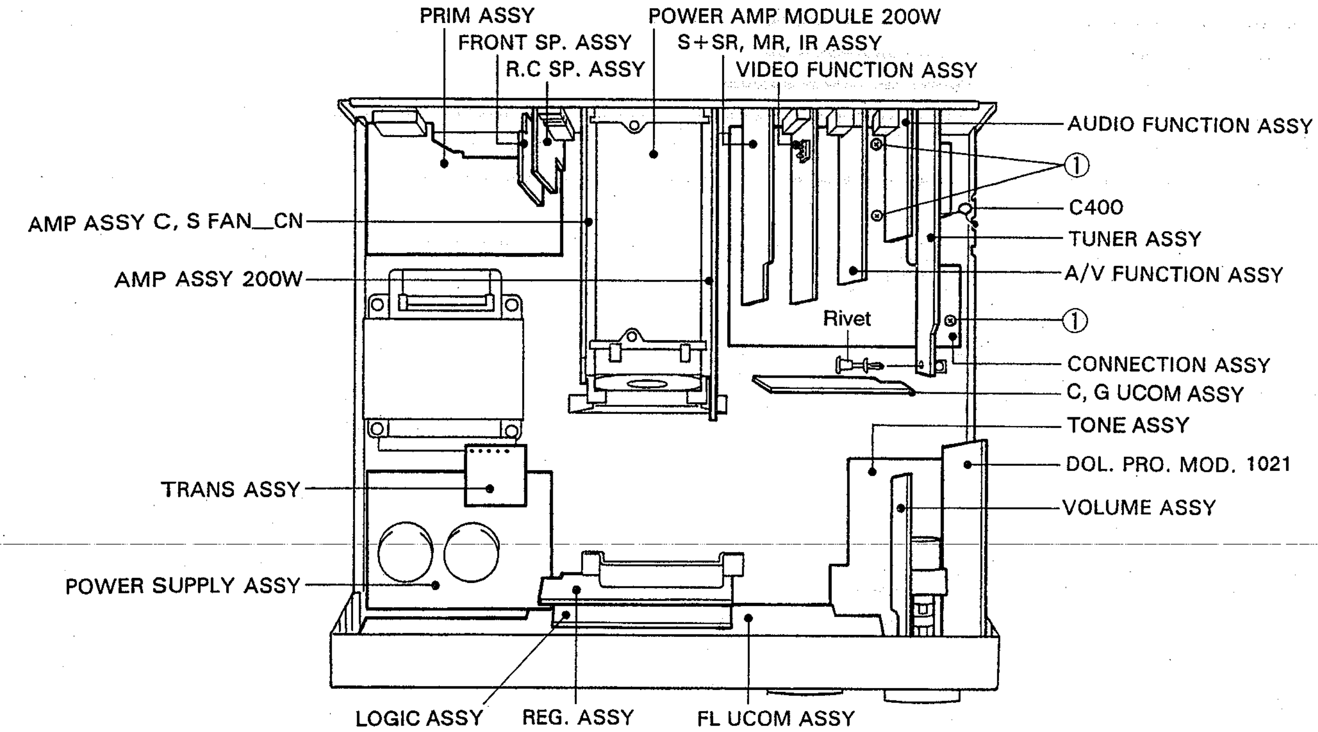

PRIM ASSY
FRONT SP. ASSY
R.C SP. ASSY
POWER AMP MODULE 200W
S+SR, MR, IR ASSY
VIDEO FUNCTION ASSY
AUDIO FUNCTION ASSY
①
C400
TUNER ASSY
A/V FUNCTION ASSY
①
Rivet
CONNECTION ASSY
C, G UCOM ASSY
TONE ASSY
DOL. PRO. MOD. 1021
VOLUME ASSY
AMP ASSY C, S FAN_CN
AMP ASSY 200W
TRANS ASSY
POWER SUPPLY ASSY
LOGIC ASSY
REG. ASSY
FL UCOM ASSY

Fig. 5－1

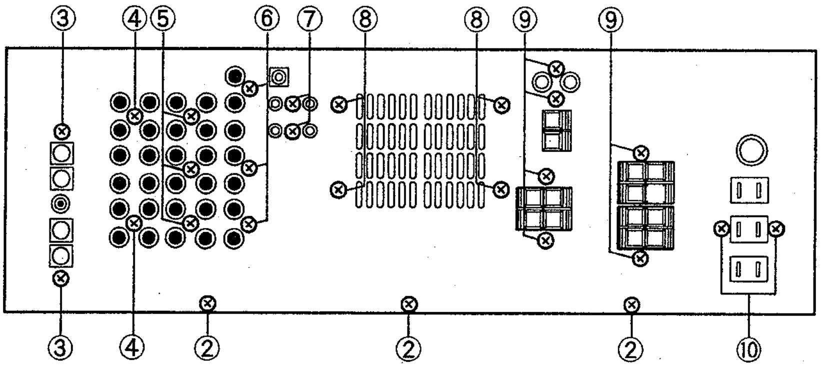

③
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Fig. 5－2

● TUNER Assy

1. Remove the capacitor (C400) (chassis side).
2. Remove the rivet, and then remove the screw ③ from the rear panel side.

● AUDIO FUNCTION Assy, A/V FUNCTION Assy, VIDEO FUNCTION Assy and S+SR, MR, IR Assy

1. Remove the screws ② to ⑧ from the rear panel side.
2. Pull the rear panel towards you, and remove the pin jacks of the PCB assemblies from the pin jack holes of the rear panel.
3. Raise each PCB assembly to remove it.
4. When removal is difficult even after the screws ② to ⑧ have been removed, also remove the screws ⑨ and ⑩.

● CONNECTION Assy

1. After removal of the capacitor (C400), remove the screws ② to ⑧. When removal is difficult even after the screws ② to ⑧ have been removed, also remove the screws ⑨ and ⑩.
2. Remove the rivet and screw ①.
3. Remove the CONNECTION assy from the PCB holder.

5.2 FRONT PANEL SECTION

1. Remove the BALANCE knob.
2. Remove the screws ① fixing both front panel L/R sides and the screw ② fixing the front panel bottom side.
3. Remove the rivet and remove the DOL. PRO. MOD. 1021 PCB.
4. Remove the MASTER VOLUME knob and screw ③.
5. Remove the screw ④ and then remove the volume holder.
   The volume holder can be removed by pressing the hook part Ⓐ of the front panel with a screwdriver to disengage the lock. (Refer to Fig. 5-4)
6. Press the hook at the bottom side of the front panel to disengage the lock with the chassis, and quietly pull the front panel to the front.

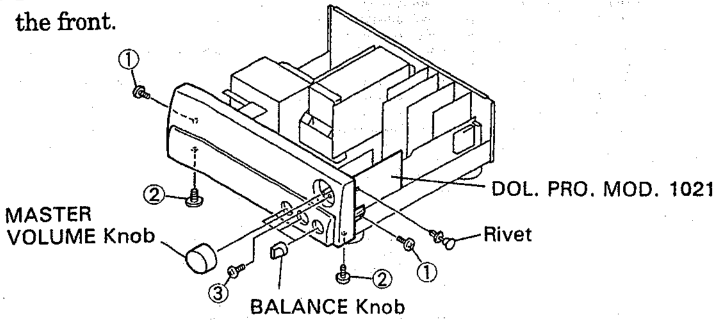

①
②
MASTER VOLUME Knob
③
BALANCE Knob
②
①
Rivet
DOL. PRO. MOD. 1021

Fig. 5−3

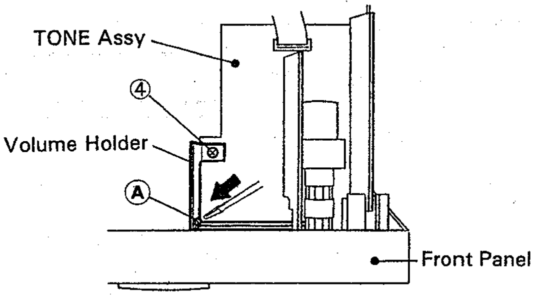

TONE Assy
④
Volume Holder
Ⓐ
Front Panel

Fig. 5−4

6. PCB ASSY DIAGNOSIS

For diagnosis of the standing PCB assemblies of Fig. 5-1, diagnosis can be executed when one of the following PCB assemblies is removed.

PCB assy to be diagnosed	PCB assy which may be removed from the CONNECTION assy	Remarks
AUDIO FUNCTION Assy	● VIDEO FUNCTION Assy ● S+SR, MR, IR Assy ● TUNER Assy	● The AUDIO FUNCTION assy and the A/V FUNCTION assy operate as a pair. When either one is removed, no operation is executed. ● When the VIDEO FUNCTION assy and the S+SR, MR, IR assy are removed from the CONNECTION assy, the earth (ADG) line is interrupted, so that a separate single wire must be prepared and the earth line must be connected. Connect the 2P, L-type terminal of the VIDEO FUNCTION assy and part Ⓐ of the CONNECTION assy with a single wire. (Refer to Figs. 6-1 and 6-2)
A/V FUNCTION Assy		
VIDEO FUNCTION Assy	● AUDIO FUNCTION Assy ● A/V FUNCTION Assy ● TUNER Assy	● The VIDEO FUNCTION assy and the SÅ{SR, MR, IR assy operate as a pair. When either one is removed, no operation is executed. ● As the earth (GND) for the AUDIO FUNCTION Assy and the A/V FUNCTION Assy is connected by a single wire, please do not disconnect the single wire. Please use an extension wire when the single wire is removed.
S+SR, MR, IR Assy		
TUNER Assy	All PCB assemblies other than the TUNER Assy	TUNER Assy operates by itself.

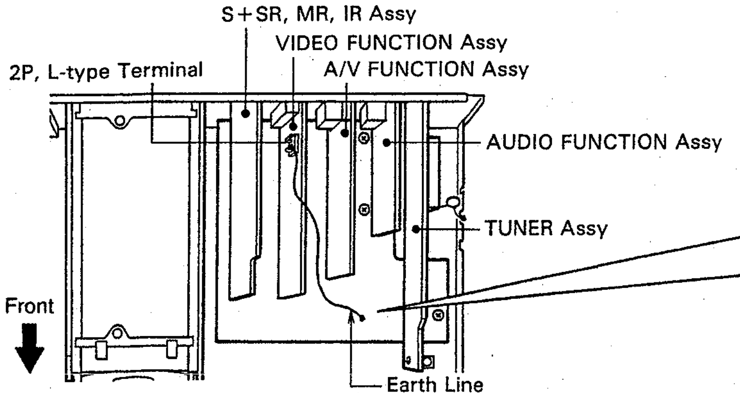

S+SR, MR, IR Assy
VIDEO FUNCTION Assy
2P, L-type Terminal
A/V FUNCTION Assy
AUDIO FUNCTION Assy
TUNER Assy
Front
Earth Line

Fig. 6−1

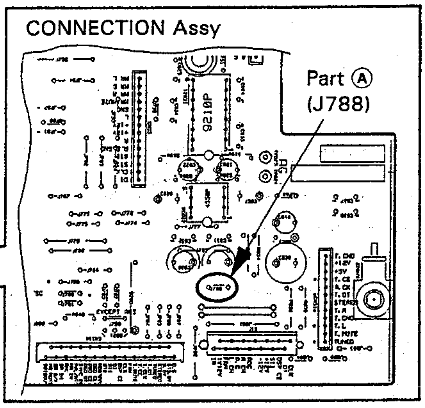

CONNECTION Assy
Part Ⓐ
(J788)

Fig. 6−2

7. ADJUSTMENTS

7.1 TUNER SECTION

■ FM Tuner Section

1. Wiring .... Connect the wires as shown in Fig. 7-1-1 (FM ANT. terminal: 75Ω).
2. Preset .... Set the VR451 to center position.

NOTE: When the SD model is used, set the band select switch to AM: 10kHz/FM: 100kHz.

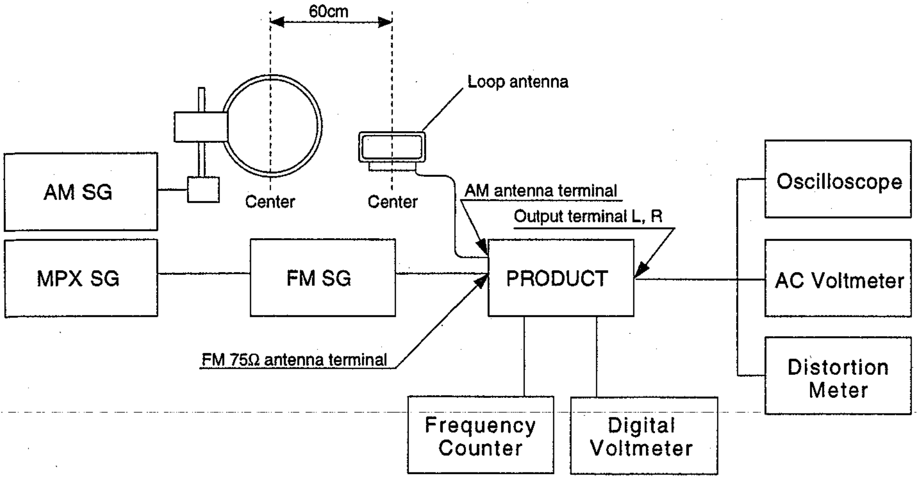

60cm
Loop antenna
AM SG
Center
Center
AM antenna terminal
Output terminal L, R
Oscilloscope
MPX SG
FM SG
PRODUCT
AC Voltmeter
FM 75Ω antenna terminal
Distortion Meter
Frequency Counter
Digital Voltmeter

Fig. 7–1–1 AM and FM Adjustment Wiring Diagram

Notes: Stereo modulation ; Main 1kHz L +R ±68.25kHz
Pilot 19kHz ±6.75Hz

FM Section

Order	Item	SSG			Reception Frequency	Adjustment Location	Remarks
		Frequency	Moduration	Level			
1	Increasing front end sensitivity	98MHz	——	Weak Input	98MHz	L402, L404, T402	Set the voltage between terminal 43 and GND to maximum, and check that the practical sensitivity is as specified.
2	Center adjustment	98MHz	——	60dBμV	98MHz	L431	Adjust the voltage between terminals 45 and 46 to ±50mV.
3	Adjusting VCO	——	OFF	60dBμV	——	VR451	Adjust the output of terminal 44 to 76.0kHz±1.0kHz.
4	Adjusting stereo distortion	98MHz	L–ONLY R–ONLY	60dBμV	98MHz	T402	Minimize the distortion within 1/4 rotation of the core, and check conformity to the specification.
5	Checking lighting of TUNED and STEREO IND.	98MHz	STEREO	10dBμV $\left(\begin{smallmatrix}+1\text{dB}\\-2\text{dB}\end{smallmatrix}\right)$	98MHz	VR432	Adjust TUNED and STEREO IND. to start lighting.

■ AM Section

Order	Item	SSG			Reception Frequency	Adjustment Location	Remarks
		Frequency	Moduration	Level			
1	Adjusting lighting level of TUNED IND.	1000kHz	——	——	1000kHz	VR431	Adjust the lighting level of TUNED IND. to 55dBμV/m±3dB

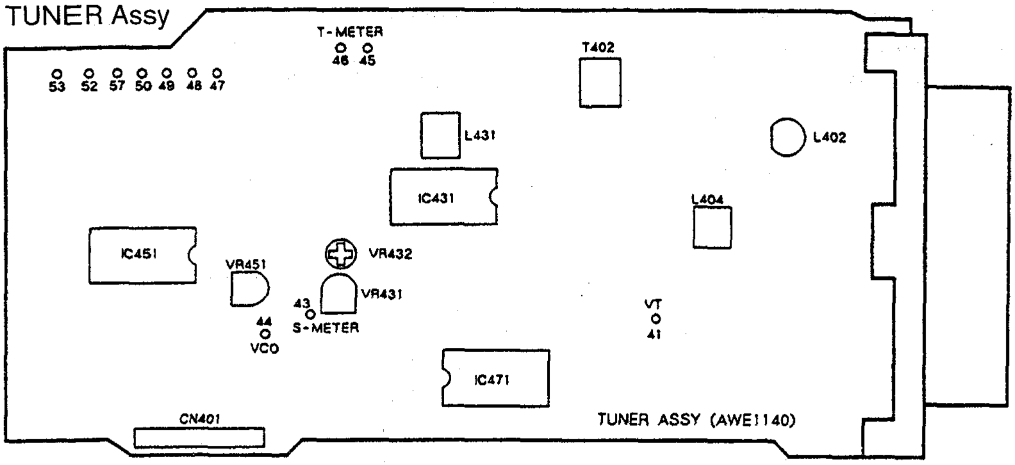

TUNER Assy
T-METER
46
45
T402
53
52
57
50
49
48
47
L431
L402
IC431
L404
IC451
VR451
VR432
VR431
43
44
S-METER
VCO
VT
41
IC471
CN401
TUNER ASSY (AWE1140)

Fig. 7–1–2 Adjustment Points

7.2 IDLE CURRENT ADJUSTMENT

1. Connect a DC voltmeter to CN205 and CN204 of the AMP ASSY 200W.
   L ch: Between pins 1 ans 2 and between pins 3 and 4 of CN205
   R ch: Between pins 1 and 2 and between pins 3 and 4 of CN204
2. Turn VR201 (L ch) and VR202 (R ch) all the way to the left.
3. Switch on the power when the set is completely cold. At the time, bring the SPEAKERS terminals to no-load condition.
4. Wait 5 minutes, and then turn VR201 (L ch) and VR202 (R ch) to the right to set the voltage to 1 mV $^{+1\text{mV}}_{-0.5\text{mV}}$ each.

Note: As the tempetature rises with the passage of time, adjustment should be executed quickly.

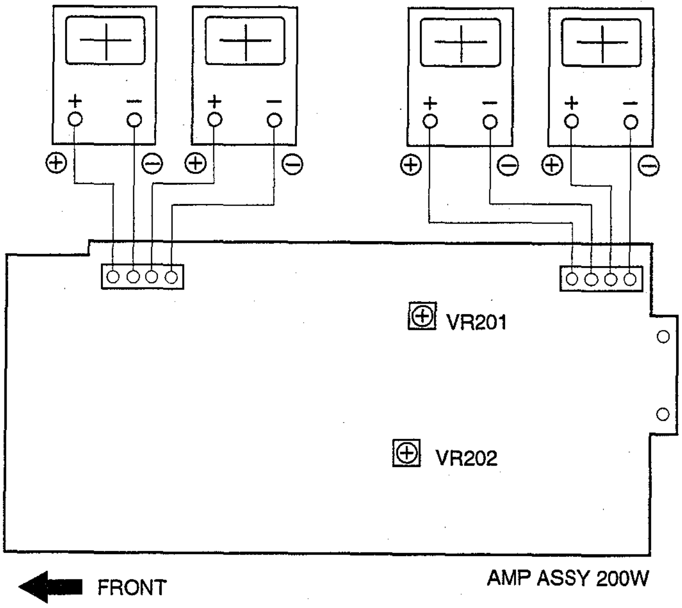
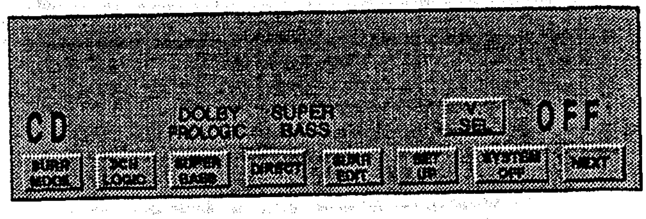

+
−
⊕
⊖
VR201
VR202
FRONT
AMP ASSY 200W

Fig. 7–2–1 Idle Current Adjustment

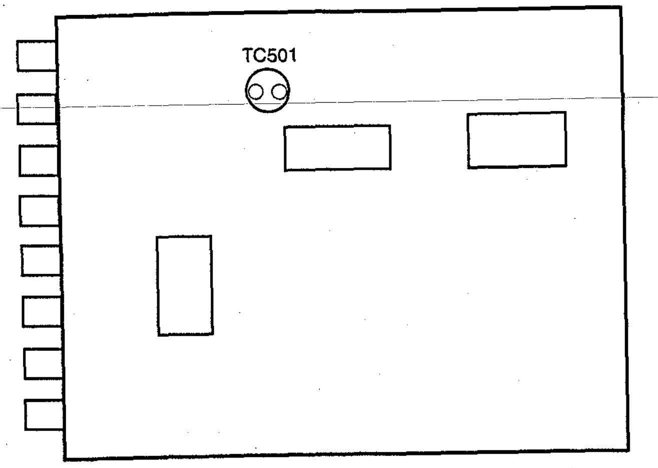
7.3 GUI SCREEN DISPLAY POSITION ADJUSTMENT

1. Connect a monitor TV to the VIDEO OUT terminal.
2. Switch on the power supply.
3. Set the function to CD.
4. Press the GUI MODE key switch to GUI mode (screen 1).
5. Use the MULTI-JOG dial to move the ☜ mark (cursor) on the screen to the NEXT key on the screen.
6. Press the GUI ENTER key. (The condition of the screen 2 will be reached.)
7. While screen 2 is being displayed (it goes out after about 10 to 15 sec.), adjust with TC501 of the VIDEO FUNCTION assy so that the margin on the screen becomes the same on the left and the right.

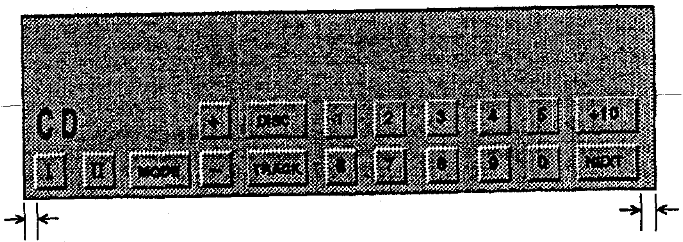
Note: When the GUI screen goes out, it can be displayed again by turning the MULTI-JOG dial.


CD
DOLBY PROLOGIC
SUPER BASS
V. SEL
OFF
SURR MODE
3CH LOGIC
SUPER BASS
DIRECT
SURR EDIT
SET UP
SYSTEM OFF
NEXT

Screen 1


TC501
Front

VIDEO FUNCTION ASSY

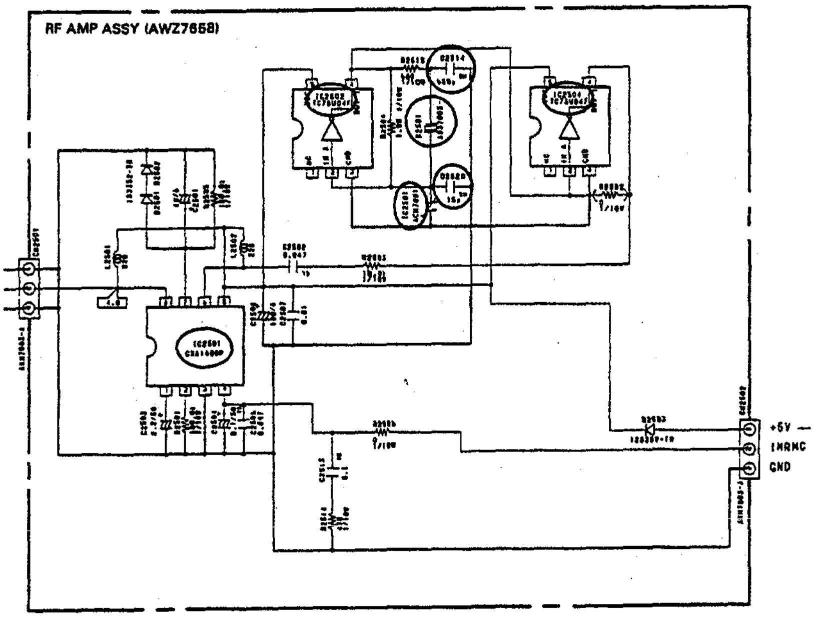

CD
+
DISC
1
2
3
4
5
+10
I
II
MODE
–
TRACK
6
7
8
9
0
NEXT

Adjust for the same margin at the left and the right.

Screen 2

7.4 REGARD TO PARTIAL EXCHANGE OF THE RF AMP ASSY

For exchange of the part marked by ○ in Fig. 1, exchange together with the PCB assy.


RF AMP ASSY (AWZ7658)
IC2501
IC2502
IC2504
+5V
GND

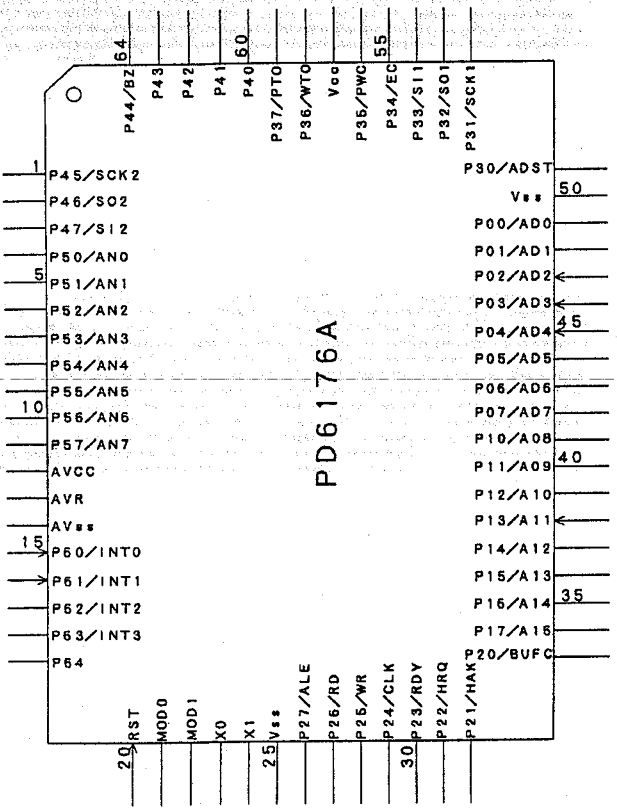
8. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

■ PD6176A (IC4501 : C.G UCOM ASSY)

● System Control Micro Computer

● Pin Assignment (Top View)


PD6176A
64
P44/BZ
P43
P42
P41
60
P40
P37/PTO
P36/WTO
VDD
P35/PWC
55
P34/EC
P33/SI1
P32/SO1
P31/SCK1
1
P45/SCK2
P46/SO2
P47/SI2
P50/AN0
5
P51/AN1
P52/AN2
P53/AN3
P54/AN4
P55/AN5
10
P56/AN6
P57/AN7
AVCC
AVR
AVss
15
P60/INT0
P61/INT1
P62/INT2
P63/INT3
P64
20
RST
MOD0
MOD1
X0
X1
25
Vss
P27/ALE
P26/RD
P25/WR
P24/CLK
30
P23/RDY
P22/HRQ
P21/HAK
P30/ADST
50
Vss
P00/AD0
P01/AD1
P02/AD2
P03/AD3
45
P04/AD4
P05/AD5
P06/AD6
P07/AD7
P10/A08
40
P11/A09
P12/A10
P13/A11
P14/A12
P15/A13
35
P16/A14
P17/A15
P20/BUFC

● Pin Function

No.	Pin Name	I/O	Description	ACT
1	P45/SCK1	I	N. C	–
2	P46/S01	I	N. C	–
3	P47(S11)	I	N. C	–
4	P50/AN0	I	N. C	–
5	P51/AN1	I	N. C	–
6	P52/AN2	I	N. C	–
7	P53/AN3	I	N. C	–
8	P54/AN4	I	N. C	–
9	P55/AN5	I	N. C	–
10	P56/AN6	I	N. C	–
11	P57/AN7	I	N. C	–
12	AVcc	I	5V (A/D Convertor power supply)	–
13	AVR	I	5V (A/D Convertor standard power supply)	–
14	AVss	I	GND (A/D Convertor power supply)	H
15	WAKE UP P60/INT0	I	AC Pulse input (for backup)	–
16	SYNC DET P61/INT1	I	Video sync signal input (NTSC/PAl judgement) 50Hz: PAL 60Hz: NTSC Used for external interrupt	–
17	P62/INT2	I	N. C (pull down)	–
18	P63/INT3	I	N. C (pull down)	–
19	P64	I	N. C (pull down)	–
20	RESET	I	Reset input	L
21	MOD0	I	GND Memory access mode setting → Internal ROM specification	–
22	MOD0			
23	X0	I	Osillator (8MHz)	–
24	X1			
25	Vss	I	GND	–
26	P27/ALE	I	N. C	–
27	P26/RD	I	N. C	–
28	P25/WR	I	N. C	–
29	P24/CLK	I	N. C	–
30	P23/RDY	I	N. C	–
31	P22/HRQ	I	N. C	–
32	P21/HAK	I	N. C	–
33	P20/BUFC	I	N. C	–
34	P17/A15	I	N. C	–
35	P16/A14	I	N. C	–
36	P15/A13	I	N. C	–
37	P14/A12	I	N. C	–

No.	Pin Name	I/O	Description	ACT
38	P13/A11	I	NTSC/PAL switching H: NTSC L: PAL	–
39	P12/A10	I	N. C	–
40	P11/A09	I	OSD IC (PD6178A) CLOCK	–
41	P10/A08	I	OSD IC (PD6178A) DATA	–
42	P07/AD7	I	OSD IC (PD6178A) CS	L
43	P06/AD6	I	N. C	–
44	P05/AD5	I	Communication with the main unit microcomputer (PDG170/169) BUSY	H
45	P04/AD4	I/O	DATA	–
46	P03/AD3	I	CONT	H
47	P02/AD2	I/O	REQ.	L
48	P01/AD2	I	CLOCK	–
49	P00/AD0	I	N. C	–
50	Vss	I	GND	–
51	P30/ADST	I	N. C	–
52	P31/SCK1	I	N. C	–
53	P32/S01	I	N. C	–
54	P33/S11	I	N. C	–
55	P34/EC	I	N. C	–
56	P35/PWC	I	N. C	–
57	Vcc	I	Power supply (+5V)	–
58	P36/WTO	I	N. C	–
59	P37/PTO	I	N. C	–
60	P40	I	N. C	–
61	P41	I	N. C	–
62	P42	I	N. C	–
63	P43	I	N. C	–
64	P44/BZ	I	N. C	–

I/O : INPUT/OUTPUT
I : INPUT
O : OUTPUT
P : Pch OPEN DRAIN OUTPUT
A/D : A/D CONVERTER INPUT
EG : EDGE

■ PDG170A (IC701 : FL UCOM ASSY)

● Rereiver Control Micro Computer

● Pin Function

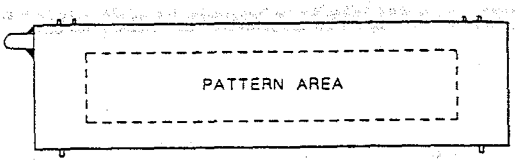
No.	Pin Name	I/O	Description
01	MR IN	I	NO USE. PULL DOWN
02	SR IN	I	Remote control signal input
03	GUI BUSY	I	C. G UCOM control
04	SMART BACKUP	O	Programmed micro computer control
05	GUI CONT	O	C. G UCOM control
06	TUNED	–	No used
07	SMART ST	–	No used
08	SMART CK	–	No used
09	SMART DK	–	No used
10	SMART RST	–	No used
11	CK	O	Strobe for each IC control
12	DATA	O	Data for each IC control
13	DSP CE	O	Strobe for D.S.P
14	GUI DT	I/O	C.G UCOM control
15	KEY IN 1	I	KEY SCAN input
16	KEY IN 2	I	KEY SCAN input
17	KEY IN 3	I	KEY SCAN input
18	JOG R	I	Input for JOG right rotation judgement
19	JOG L	I	Input for JOG left rotation judgement
20	GUI REQ	I/O	C.G UCOM control
21	SR IN DET	I	SR IN terminal insertion detection
22	STEREO	I	Input for stereo reception judgement
23	DSO OVER LOAD	–	No used
24	TEMP IN	I	AMP temparature detection DC input
25	OVER LOAD	I	AMP output trouble detection DC input
26	WATT IN	I	AMP output detection DC input
27	TUNED	I	Input for tuner reception judgement
28	TUNER DATA	O	Data for Tuner
29	TUNER CLK	O	Clock for Tuner
30	RST	I	UCOM reset input

No.	Pin Name	I/O	Description
31	EXTAL	I	Ceramic Resonator (8MHz)
32	XTAL		
33	Vss	O	GND
34	TUNER CE	O	Strobe for Tuner
35	T. MUTE	O	Muting control in Tuner assy
36	ST 1	O	Strobe for each IC
37	A. MUTE	O	MUTE ON/OFF
38	ST 2	O	Strobe for each IC
39	VOL UP	O	Output for motor volume up
40	VOL DOWN	O	Output for motor volume down
41	LE 66320	O	Strobe for M66320FP
42	MR MUTE	O	Multi room MUTE ON/OFF (not used by VSX-D705S)
43	AC RY	O	POWER RY, STBY IND CONTROL
44 | 54	SEG1/KEY1 | SEG11/KEY11	O	FL CONTROL
55 | 58	SEG12 | SEG15		
59 | 70	GRIT1 | GRIT12		
71	Vref	–	–VF
72	VDD	–	VDD
73	NC	O	Not connected
74	SMART RST	O	Programmed micro computer control
75	SMART DT	–	
76	SMART CK	–	
77	SMART ST	–	
78	1M DET	I	Input for 1M remote control reception judgement
79	WAKE UP	I	AC detection judgement
80	GUI CK	I	C. G UCOM control

9. FL INFORMATION

■ AAV1196(V701)

PIN LOCATION


PATTERN AREA

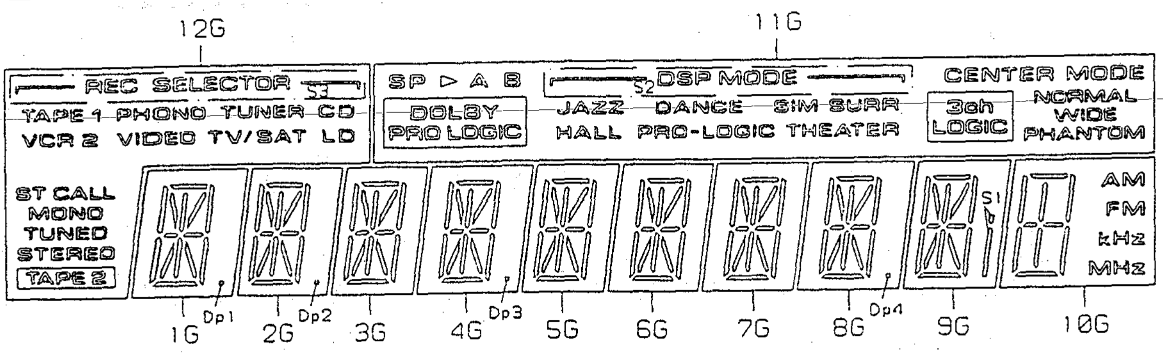
PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
CONNECTION	F1	F1	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	NX	NX	NX	NX	NX	NX

PIN NO.	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
CONNECTION	NX	NX	NX	NX	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F2	F2

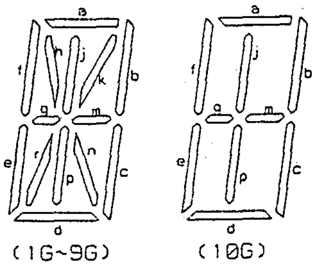
NOTE
1) F1,F2 --- Filament
2) NP ------ No pin
3) NX ------ No extend pin
4) DL ------ Datum Line
5) 1G~12G --- Grid

GRID ASSIGNMENT


12G
11G
REC SELECTOR
S3
TAPE 1 PHONO TUNER CD
VCR 2 VIDEO TV/SAT LD
SP ▷ A B
DOLBY PRO LOGIC
S2
DSP MODE
JAZZ DANCE SIM SURR
HALL PRO-LOGIC THEATER
CENTER MODE
3ch LOGIC
NORMAL
WIDE
PHANTOM
ST CALL
MONO
TUNED
STEREO
TAPE 2
S1
AM
FM
kHz
MHz
1G
Dp1
2G
Dp2
3G
4G
Dp3
5G
6G
7G
8G
Dp4
9G
10G

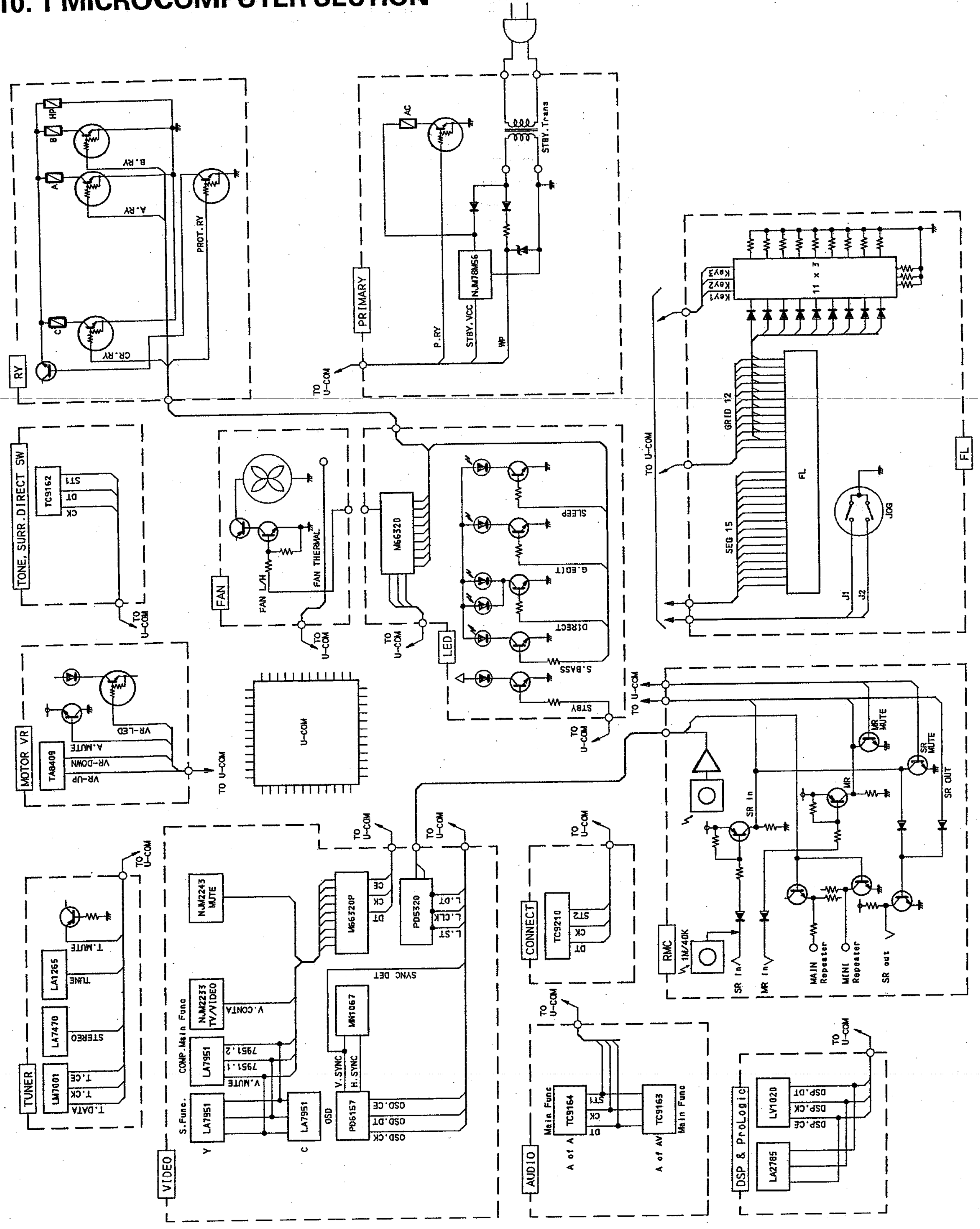
ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G
P1	a	a	a	a	a	a	a	a	a	a	PHANTOM	ST CALL
P2	j	j	j	j	j	j	j	j	j	j	DOLBY PRO LOGIC	MONO
P3	k	k	k	k	k	k	k	k	k	AM	WIDE	LD
P4	h	h	h	h	h	h	h	h	h	FM	NORMAL	TV/SAT
P5	b	b	b	b	b	b	b	b	b	b	3ch LOGIC	VIDEO
P6	f	f	f	f	f	f	f	f	f	f	CENTER MODE	VCR 2
P7	g	g	g	g	g	g	g	g	g	g	PRO-LOGIC THEATER	-
P8	m	m	m	m	m	m	m	m	m	m	HALL	CD
P9	c	c	c	c	c	c	c	c	c	c	SIM SURR	TUNER
P10	e	e	e	e	e	e	e	e	e	e	DANCE	PHONO
P11	n	n	n	n	n	n	n	n	n	kHz	JAZZ	TAPE 1
P12	r	r	r	r	r	r	r	r	r	MHz	SP ▷	TUNED
P13	p	p	p	p	p	p	p	p	p	p	A	STEREO
P14	d	d	d	d	d	d	d	d	d	d	B	TAPE 2
P15	Dp1	Dp2	-	Dp3	-	-	-	Dp4	S1	-	S2	S3

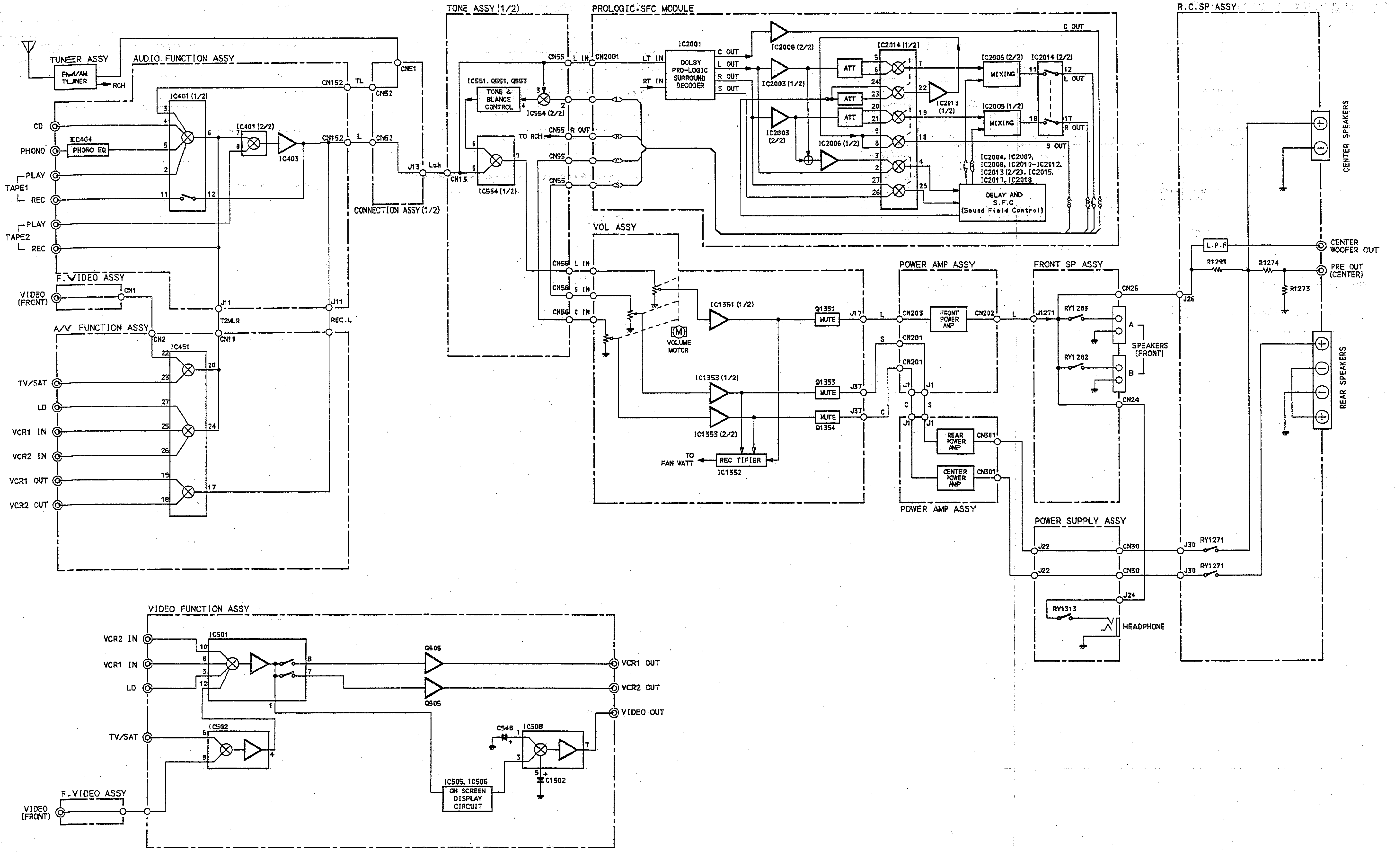

a
b
c
d
e
f
g
h
j
k
m
n
p
r
(1G~9G)
a
b
c
d
e
f
g
j
m
p
(10G)

10. BLOCK DIAGRAM

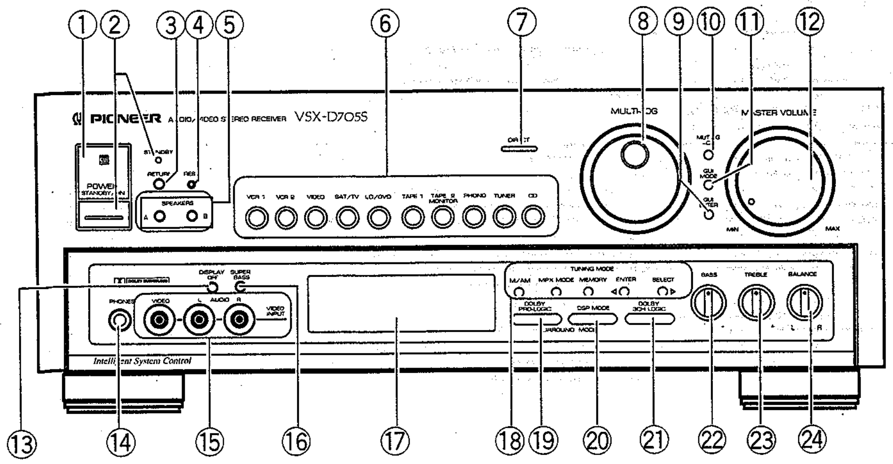
10. 1 MICROCOMPUTER SECTION


RY
HP
B
A
C
B.RY
A.RY
CR.RY
PROT.RY
PRIMARY
AC
STBY.Trans
NJM78M56
P.RY
STBY.VCC
WP
TO U-COM
TONE, SURR. DIRECT SW
TC9162
ST1
DT
CK
FAN
FAN L/H
FAN THERMAL
M66320
LED
SLEEP
G.EQ
DIRECT
S.BASS
STBY
U-COM
FL
Key1
Key2
Key3
11 x 3
GRID 12
SEG 15
JOG
J1
J2
MOTOR VR
TA8409
VR-LED
A.MUTE
VR-DOWN
VR-UP
MR MUTE
SR MUTE
MR
SR In
SR OUT
RMC
1M/40K
MR In
MAIN Repeater
MINI Repeater
SR out
TUNER
LA1265
LA7470
LM7001
T.MUTE
TUNE
STEREO
T.CE
T.CK
T.DATA
VIDEO
NJM2243 MUTE
NJM2233 TV/VIDEO
COMP. Main Func
S.Func.
LA7951
M66320P
PD5320
MN1067
PD6157
OSD
CE
CK
DT
L.DT
L.CLK
L.ST
SYNC DET
V.CONTA
7951.2
7951.1
V.MUTE
V.SYNC
H.SYNC
OSD.CE
OSD.DT
OSD.CK
Y
C
CONNECT
TC9210
ST2
AUDIO
TC9164
TC9163
Main Func
A of A
A of AV
DSP & ProLogic
LV1020
LA2785
DSP.DT
DSP.CK
DSP.CE

10. 2 AUDIO AND VIDEO SECTION


TUNER ASSY
FM/AM TUNER
RCH
AUDIO FUNCTION ASSY
CN152
TL
CN51
CN52
IC401 (1/2)
IC401 (2/2)
IC403
IC404
PHONO EQ
CD
PHONO
TAPE1
PLAY
REC
TAPE2
PLAY
REC
L
J13
Lch
CN13
CONNECTION ASSY (1/2)
F.VIDEO ASSY
VIDEO (FRONT)
CN1
J11
T2MLR
REC.L
CN11
CN2
A/V FUNCTION ASSY
IC451
TV/SAT
LD
VCR1 IN
VCR2 IN
VCR1 OUT
VCR2 OUT
TONE ASSY (1/2)
IC551, Q551, Q553
TONE & BLANCE CONTROL
IC554 (2/2)
IC554 (1/2)
CN55
L IN
R OUT
TO RCH
CN56
S IN
C IN
PROLOGIC・SFC MODULE
CN2001
IC2001
LT IN
RT IN
DOLBY PRO-LOGIC SURROUND DECODER
C OUT
L OUT
R OUT
S OUT
IC2006 (2/2)
IC2003 (1/2)
IC2003 (2/2)
IC2006 (1/2)
IC2014 (1/2)
ATT
IC2013 (1/2)
IC2005 (2/2)
IC2014 (2/2)
IC2005 (1/2)
MIXING
DELAY AND S.F.C (Sound Field Control)
IC2004, IC2007, IC2008, IC2010~IC2012, IC2013 (2/2), IC2015, IC2017, IC2018
VOL ASSY
VOLUME MOTOR
IC1351 (1/2)
IC1353 (1/2)
IC1353 (2/2)
Q1351
Q1353
Q1354
MUTE
J17
J37
REC TIFIER
IC1352
TO FAN WATT
POWER AMP ASSY
CN203
CN202
CN201
FRONT POWER AMP
REAR POWER AMP
CENTER POWER AMP
CN301
J1
FRONT SP ASSY
J1271
RY1283
RY1282
CN26
CN24
SPEAKERS (FRONT)
A
B
R.C.SP ASSY
J26
L.P.F
R1293
R1274
R1273
CENTER SPEAKERS
CENTER WOOFER OUT
PRE OUT (CENTER)
REAR SPEAKERS
POWER SUPPLY ASSY
J22
CN30
J30
RY1271
J24
RY1313
HEADPHONE
VIDEO FUNCTION ASSY
IC501
IC502
Q506
Q505
VCR2 IN
VCR1 IN
LD
TV/SAT
VCR1 OUT
VCR2 OUT
VIDEO OUT
C548
IC508
C1502
IC505, IC506
ON SCREEN DISPLAY CIRCUIT
F.VIDEO ASSY
VIDEO (FRONT)

11. PANEL FACILITIES



① Remote sensor

② POWER STANDBY/ON switch, STANDBY indicator

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

The STANDBY indicator lights when the power is set to STANDBY and goes out when set to ON.

(Timer ON/OFF possible)

When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

③ RETURN button

Press this button to return the receiver to its initial state. TUNER is selected at this initial state. Adjust the sound level by using the MASTER VOLUME control.

TAPE 2 MONITOR .... OFF
DSP MODE .... OFF
SUPER BASS .... OFF
MUTING .... OFF
FUNCTION .... TUNER
DOLBY PRO LOGIC .... OFF
DOLBY 3CH LOGIC .... OFF

And SPEAKERS buttons switch as follows.

Before pressing the RETURN button		After pressing
Both A and B are off	⟶	Only A is on
Only A is on	⟶	No change
Only B is on	⟶	Both A and B are on
Both A and B are on	⟶	No change

NOTE:

Press the RETURN button and the frequency last selected is received. If reception of the frequency last selected is not possible, the mode automatically switches to AUTO TUNING.

④ RESET button

Use this when normal operation is not possible because of external influences such as static electricity or lightning, or when operations are not functioning even when operation buttons are pressed. Press this button to return to normal operating conditions.

⑤ SPEAKERS buttons (A,B)

ON/OFF switches for the A and B speaker systems.

⑥ Input selector buttons

VCR 1: Press when performing playback on a first VCR unit.

VCR 2: Press when performing playback on a second VCR unit.

VIDEO: Press when performing playback on a TV camera or VCR connected to the VIDEO INPUT jack on the front panel.

SAT/TV: Press to watch TV broadcasts from the TV (digital satellite system) tuner connected to the rear panel SAT/TV IN jacks.

LD/DVD: Press when performing playback on an LD player (or DVD player).

TAPE 1: Press when performing playback on a cassette deck.

TAPE 2 MONITOR: Press when performing playback on a second cassette deck and when monitoring recording.

PHONO: Press when playing records on a turntable.

TUNER: Press when listening to radio broadcasts.

CD: Press when playing compact discs on a CD player.

⑦ DIRECT button*

Press this to listen to source sound without passing the audio signal through sound quality and balance adjusting circuitry. The surround mode, super bass, and rear and center speakers are automatically switched off.

⑧ MULTI-JOG and indicator

Use during tuner operation to select frequencies and station numbers. During GUI operation, use to move the on-screen cursor. When GUI is ON, the JOG indicator lights.

You can also use this to input File-Type CD player disc titles.

⑨ GUI ENTER button (GUI operation)

Press to execute an operation selected with the MULTI-JOG.

⑩ MUTING button

Press to temporarily cut off the sound volume. When pressed again, the sound will return to its previous level.

⑪ GUI MODE button

Switches GUI MODE on and off.

⑫ MASTER VOLUME control

Use it to simultaneously adjust the sound volume from the front, center, and rear speakers.

⑬ DISPLAY OFF button

This switches the display OFF.

⑭ PHONES jack

Connect the plug on your headphones to this jack. Set SPEAKERS A and B switches to OFF if you want to cut the sound from the speakers and listen to it only through the headphones.

⑮ VIDEO INPUT jacks

VIDEO components such as a VCR or TV camera, etc. can be connected.

⑯ SUPER BASS button*

Press this button when you want to boost the bass.

⑰ Display section

⑱ TUNING MODE buttons

FM/AM button:

Use this to switch between FM and AM frequency band reception.

MPX MODE button:

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the MONO indicator in the display section is lit.

Auto stereo mode

Normally, leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo.

Monaural mode

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

This button has no effect on reception of AM broadcasts.

MEMORY button:

Press this button to switch to the frequency preset mode. (When GUI is ON, it does not operate.)

ENTER button:

Press this button when you are in the frequency preset mode, and the displayed frequency is memorized in the selected station. (Station indications stop flashing and stay lit.)

You can also use this to input File-Type CD player disc titles.

SELECT button:

Press this button to switch to the station mode. Then you can turn the MULTI-JOG to select a station.

You can also use this to input File-Type CD player disc titles.

⑲ DOLBY PRO LOGIC button*

Switches DOLBY PRO LOGIC SURROUND on and off.

⑳ DSP MODE button*

Each time you press it, the mode and the display indications change as follows:

$$\begin{tikzcd} \text{JAZZ} \arrow[r] & \text{DANCE} \arrow[r] & \text{SIMULATED SURROUND} \arrow[d] \\ \text{off} \arrow[u] & \text{PRO LOGIC THEATER} \arrow[l] & \text{HALL} \arrow[l] \end{tikzcd}$$

㉑ DOLBY 3CH LOGIC button*

Select this setting when stereo-source regeneration and rear speakers are not connected and you wish to use the front L, front R, and center speakers to enjoy audio/visual material bearing the DD DOLBY SURROUND mark.

㉒ BASS control

Use to adjust the low-frequency level. Turn clockwise to boost bass, and counterclockwise to attenuate bass.

㉓ TREBLE control

Use to adjust the high-frequency level. Turn clockwise to boost treble, and counterclockwise to attenuate treble.

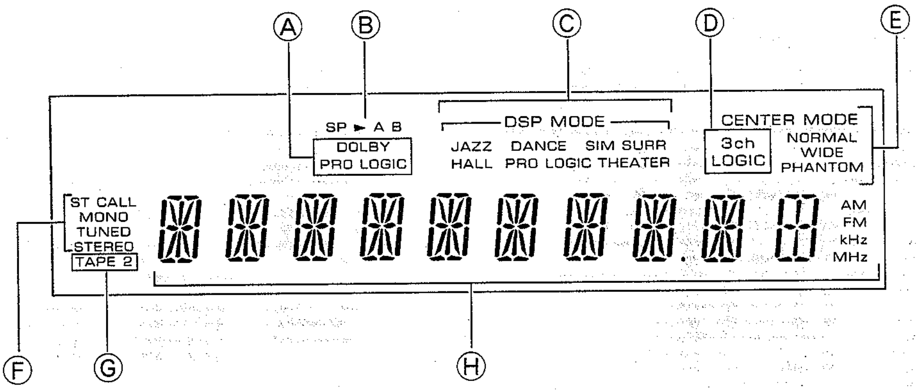
㉔ BALANCE control

Use to adjust the sound volume balance between left and right speakers.

L : Decreases the sound on the right side.
R : Decreases the sound on the left side.

Usually, left and right volume levels should be the same.

*Setting is memorized separately for each input selector button.


Ⓐ
Ⓑ
Ⓒ
Ⓓ
Ⓔ
SP ► A B
DOLBY PRO LOGIC
DSP MODE
JAZZ
DANCE
SIM SURR
HALL
PRO LOGIC THEATER
CENTER MODE
3ch LOGIC
NORMAL
WIDE
PHANTOM
ST CALL
MONO
TUNED
STEREO
TAPE 2
AM
FM
kHz
MHz
Ⓕ
Ⓖ
Ⓗ

Ⓐ DOLBY PRO LOGIC indicator

Ⓑ SP (SPEAKERS) A, B indicators

Shows which speaker system (or systems) are switched on.

Ⓒ DSP MODE indicators

Ⓓ DOLBY 3CH LOGIC indicator

Ⓔ CENTER MODE indicators

These display the center mode (NORMAL, WIDE, PHANTOM) during DOLBY PRO LOGIC SURROUND, PRO LOGIC THEATER and DOLBY 3CH LOGIC operation.

Ⓕ Tuning indicators

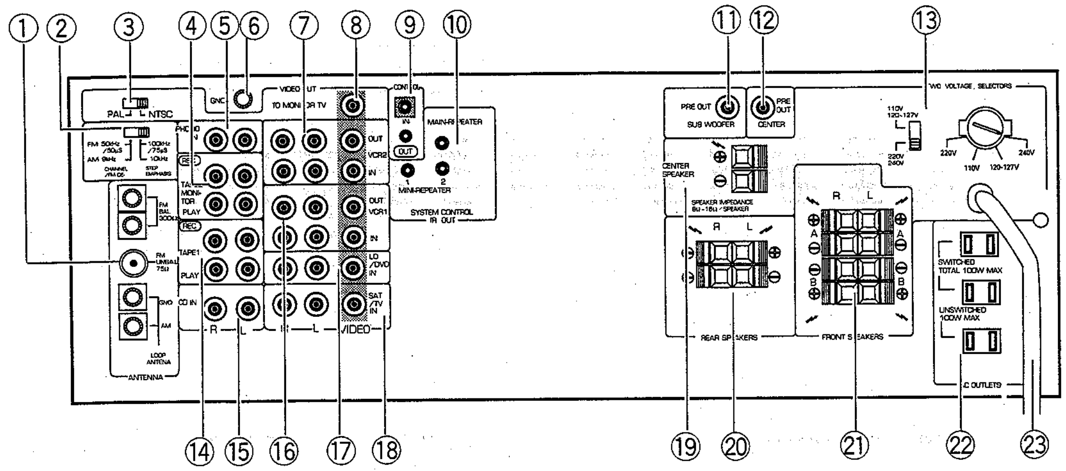
ST (STATION) CALL:	Press the SELECT button to switch to the station mode, and this indicator lights.
MONO:	Lights up when the FM MONO mode is selected with the MPX MODE button.
TUNED:	Lights up when a station is tuned.
STEREO:	Lights up when a stereo FM broadcast is being received.

Ⓖ TAPE 2 indicator

Lights up when the input selector is set to TAPE 2 MONITOR ON.

Ⓗ CHARACTER display

Illustration shows Multi-voltage model.


①
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㉑
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㉓
PAL NTSC
GND
VIDEO OUT TO MONITOR TV
CONTROL IN OUT
MAIN-REPEATER
MINI-REPEATER 1 2
SYSTEM CONTROL IR OUT
PHONO
TAPE MONITOR PLAY REC
TAPE1 PLAY
CD IN
VCR2
VCR1
LD /DVD IN
SAT /TV IN
R L VIDEO
FM 75Ω
AM
LOOP ANTENNA
ANTENNA
PRE OUT SUB WOOFER
PRE OUT CENTER
CENTER SPEAKER
REAR SPEAKERS
FRONT SPEAKERS
A B
220V 240V 110V 120-127V
SWITCHED TOTAL 100W MAX
UNSWITCHED 100W MAX
AC OUTLETS

① FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

② CHANNEL STEP switch (Multi-voltage model only)

③ PAL/NTSC switch (Multi-voltage model only)

④ TAPE 2 MONITOR jacks

Connect to audio components such as a second cassette deck or a graphic equalizer.

⑤ PHONO input jacks

Connect to the output cables from a turntable.

⑥ GND terminal

Connect the turntable ground lead to this terminal.

NOTE :

This is used to decrease noise and does not serve as a complete ground.

⑦ VCR 2 jacks

[VIDEO OUT]

Connect to the VCR 2 VIDEO INPUT jack.

[AUDIO OUT (L, R)]

Connect to the VCR 2 AUDIO INPUT jacks.

[VIDEO IN]

Connect to the VCR 2 VIDEO OUTPUT jack.

[AUDIO IN (L, R)]

Connect to the VCR 2 AUDIO OUTPUT jacks.

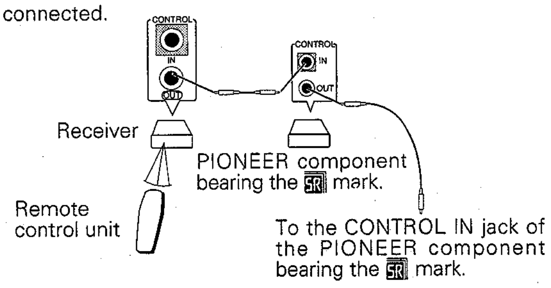
⑧ VIDEO OUT (TO MONITOR TV) jack

Connect to a monitor TV or to TV sets with video input terminals to watch program materials from a VCR or LD player (or DVD player) connected to this unit.

⑨ CONTROL IN/OUT jacks

IN: With a separately sold mini-plug cord (with no resistor), connect this jack to the CONTROL OUT jack of a component bearing the SR mark. This unit's remote control sensor will no longer receive remote control signals. However, remote control signals received by the remote sensor of the component bearing the SR mark are transmitted through the mini-plug cable, enabling control of this unit with the remote control of the component bearing the SR mark.

OUT: With a separately sold mini-plug cord (with no resistor), connect this jack to the CONTROL IN jack of a component bearing the SR mark. This unit outputs remote control signals to another component or outputs remote control signals received from another component, depending on how it is connected.


CONTROL
IN
OUT
CONTROL
IN
OUT
Receiver
PIONEER component bearing the SR mark.
Remote control unit
To the CONTROL IN jack of the PIONEER component bearing the SR mark.

NOTE :

- ***If there is a plug in this unit's CONTROL IN jack, ISC (Intelligent System Control) (including GUI operation) is not possible.***
- *The remote control unit provided with this unit adopts a different method from the remote control units of Pioneer systems.Consequently, this unit and other components will not operate when the remote control unit is directed at the remote control signal sensor window of the connected components. Other components will not operate unless a signal is received by the sensor window of this unit, and this unit consequently converts the signal received to the remote control signal corresponding to the other component.*

⑩ SYSTEM CONTROL IR OUT jacks

To operate other components with this unit's remote control or GUI, connect the supplied repeater.

MINI-REPEATER 1, 2:

Connect the supplied Mini-Repeater.

MAIN-REPEATER:

Connect the supplied Main-Repeater.

⑪ SUB WOOFER PRE OUT jack

If you want to boost the low frequencies, connect to a subwoofer power amplifier.

⑫ CENTER PRE OUT jack

When a separate power amplifier is used to drive the surround center speaker, connect the power amplifier to this jack.

⑬ TWO VOLTAGE SELECTORS switches (Multi-voltage model only)

⑭ TAPE 1 jacks

Connect to the first cassette deck.

⑮ CD input jacks

Connect to the output jacks of a compact disc player.

⑯ VCR 1 jacks

[VIDEO OUT]
Connect to the VCR 1 VIDEO INPUT jack.
[AUDIO OUT (L, R)]
Connect to the VCR 1 AUDIO INPUT jacks.
[VIDEO IN]
Connect to the VCR 1 VIDEO OUTPUT jack.
[AUDIO IN (L, R)]
Connect to the VCR 1 AUDIO OUTPUT jacks.

⑰ LD/DVD input jacks

Connect to an LD player's or DVD player's output jacks (audio, video).

⑱ SAT (Satellite)/TV jacks (input)

Use these jacks if you wish to connect a TV (digital satellite system) tuner with both video and audio outputs.

⑲ CENTER SPEAKER terminals

Connect the center speaker to these terminals.

NOTE :
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctions or breakdowns may occur when conductors come into contact with each other. Use a center speaker with an impedance of 8 Ω to 16 Ω.

⑳ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.

NOTE:
- *Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctions or breakdowns may occur when conductors come into contact with each other. Use rear speakers with an impedance of 8 Ω to 16 Ω .*
- *Be sure to connect two speakers (L, R). There will be no sound if only one speaker is connected.*

㉑ FRONT SPEAKERS terminals

A : Connect to the first set of speakers.
B : Connect to the second set of speakers.

NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctions or breakdowns may occur when conductors come into contact with each other. Use front speakers with an impedance of 8 Ω to 16 Ω.

㉒ AC OUTLETS

(U.S. and Canadian models)
〔SWITCHED TOTAL 100 W (0.8 A) MAX〕
Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W (0.8 A).
〔UNSWITCHED 100 W (0.8 A) MAX〕
Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W (0.8 A).

(Multi-voltage model)
〔SWITCHED TOTAL 100 W MAX〕
Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.
〔UNSWITCHED 100 W MAX〕
Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.

NOTE:
- *This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.*
- *Do not connect appliances with high power consumption such as heaters, irons, or television sets to these AC OUTLETS in order to avoid overheating and fire risk. This can cause the receiver to malfunction.*

CAUTION:
DO NOT CONNECT MONITOR OR TV SET.

㉓ Power cord

12. SPECIFICATIONS

Amplifier Section

Continuous average power output of 165 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.05 % total harmonic distortion (front).**

[Multi-voltage model]	
Continuous Power Output (DIN)	
Front (1kHz, T.H.D. 1%, 8 Ω)	180 W+ 180 W
Continuous Power Output	
Front	150 W + 150 W (1kHz, 0.8%, 8 Ω)
Center	150 W (1kHz, 0.8%, 8 Ω)
Rear	150 W (1kHz, 0.8%, 8 Ω)
Dynamic Power (2 Ω /4 Ω)	450 W/330 W
Input (Sensitivity/Impedance)	
PHONO MM	2.8 mV/47 kΩ
CD, TAPE 1, TAPE 2, LD/DVD, VCR 1,VCR 2, VIDEO, SAT/TV	200 mV/47 kΩ
Frequency Response	
PHONO MM	20 Hz to 20,000 Hz ± 0.3 dB
CD, TAPE 1, TAPE 2, LD/DVD, VCR 1, VCR 2, VIDEO, SAT/TV	5 Hz to 100,000 Hz $^{+0}_{-3}$dB
Output (Level/Impedance)	
TAPE 1 REC, TAPE 2 REC	200 mV/2.2 kΩ
VCR 1 OUT,VCR 2 OUT	200 mV/2.2 kΩ
Tone Control	
BASS	± 8 dB (150 Hz)
TREBLE	± 8 dB (10 kHz)
SUPER BASS	+8 dB (80 Hz)
Signal-to-Noise Ratio (IHF, short circuited, A network)	
PHONO MM	76 dB
CD, TAPE 1, TAPE 2, LD/DVD, VCR 1,VCR 2, VIDEO, SAT/TV	97 dB
Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]	
PHONO MM	77 dB
CD, TAPE 1, TAPE 2, LD/DVD, VCR 1,VCR 2, VIDEO, SAT/TV	80 dB

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.*

** *Measured by Audio Spectrum Analyzer.*

VIDEO Section

Input (Sensitivity/Impedance)	
VCR 1, VCR 2, LD/DVD, VIDEO	1 Vp-p/75 Ω
Output (Level/Impedance)	
VCR 1, VCR 2, MONITOR	1 Vp-p/75 Ω
Frequency Response	
VCR 1, VCR 2, LD/DVD, VIDEO → MONITOR	5 Hz to 10 MHz $^{+0}_{-3}$dB
Signal-to-Noise Ratio	55 dB
Cross Talk	55 dB
TV color system	
U.S. and Canadian models	NTSC
Multi-voltage model	PAL/NTSC (switchable)

FM Tuner Section

Frequency Range	87.5 MHz to 108 MHz
Usable Sensitivity	Mono:11.2 dBf, IHF (1.0 μV/75 Ω)
50 dB Quieting Sensitivity	Mono: 16.8 dBf Stereo: 38.6 dBf
Signal-to-Noise Ratio	Mono: 80 dB (at 65 dBf) Stereo: 76 dB (at 85 dBf)
Distortion	Stereo: 0.3 % (1 kHz)
Alternate Channel Selectivity	65 dB (400 kHz)
Stereo Separation	45 dB (1 kHz)
Frequency Response	30 Hz to 15 kHz ($^{+0.5}_{-2.0}$) dB
Antenna Input	300 Ω balanced 75 Ω unbalanced

AM Tuner Section

Frequency Range	531 kHz to 1,602 kHz (9 kHz step) 530 kHz to 1,600 kHz (10 kHz step)
Sensitivity (IHF, Loop antenna)	300 μV/m
Selectivity	25 dB
Signal-to-Noise Ratio	50 dB
Antenna	Loop antenna

Miscellaneous

Power Requirements	
U.S. and Canadian models	AC 120 V, 60 Hz
Multi-voltage model	AC 110 V/120-127 V/220 V/240 V (Switchable), 50/60 Hz
Power Consumption	
U.S. and Canadian models	375 W, 590 VA
Multi-voltage model	1,070 W
In Standby Condition	5 W
AC Outlets	
U.S. and Canadian models	
SWITCHED × 2	TOTAL 100 W (0.8 A) MAX
UNSWITCHED × 1	100 W (0.8 A) MAX
Multi-voltage model	
SWITCHED × 2	TOTAL 100 W MAX
UNSWITCHED × 1	100 W MAX
Dimensions	420 (W) × 162 (H) × 414(D) mm 16-9/16 (W) × 6-3/8 (H) × 6-5/16 (D) in
Weight (without package)	
U.S. and Canadian models	12.7 kg (28 lb)
Multi-voltage model	12.9 kg (28 lb 7 oz)

Furnished Parts

FM T-type Antenna	1
AM Loop Antenna	1
Dry Cell Batteries (AA/R6P)	2
Remote Control Unit	1
Main-Repeater	1
Mini-Repeater	1
Operating Instructions	1

NOTE:

Specifications and the design are subject to possible modifications without notice, due to improvements.